मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान
जयपुर

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY
JAIPUR

Agenda

Senate

59th Meeting

Date: 16th July, 2025
Time: 4:00 PM
Venue: Niti Sabhagar, Prabha Bhawan
MNIT Jaipur-302017

मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर
MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

AGENDA FOR THE 59TH MEETING OF THE SENATE TO BE HELD ON 16TH JULY 2025 (WEDNESDAY) AT 4.00 PM

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मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान् जयपुर
MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

Agenda for 59th Meeting of Senate
(to be held on 16thJuly 2025 at 4.00 PM in the Niti Sabhagar, Prabha Bhawan, MNIT, Jaipur)

Item No. 59-1.0: To confirm the minutes of 58th meeting of the Senate.

The minutes of the 58th meeting of the Senate, held on 11th March 2025, were circulated to all the members. No comments were received, the minutes are placed for confirmation at **Annexure-A (Page- 31 to 38)**.

The minutes are placed before the Senate for confirmation.

Item No. 59-2.0: To note the "Action Taken" on the decisions taken in the 58th meeting of the Senate.

Action Taken on the decisions made in the 58th meeting of the Senate.

ACTION TAKEN REPORT (58th Senate meeting)

Item No.	Particulars	Decision	Action Taken
58-1.0	To confirm the minutes of the 56th and 57th (Emergent) meeting of the Senate.	The Senate confirmed the minutes of the 56th and 57th (Emergent) meetings of the Senate.	Noted
58-2.0	To note the "Action Taken" on the decisions taken in the 56th and 57th (Emergent) meeting of the Senate.	The Senate noted the action taken report on the decision/resolutions taken in its 56th and 57th (Emergent) meeting.	Noted
58-3.0	Item for ratification		
58-3.1	To ratify the nomination of external members of the Senate.	Item was ratified	Noted
58-4.0	Items for consideration		

<table>
<tr>
<td>58-4.1</td>
<td>To consider the academic calendar for the academic year 2025-26.</td>
<td>Resolution No. Senate-58/2025/01: The Senate reviewed and approved the proposed academic calendar for the academic session 2025-26. Additionally, the Senate recommended that, moving forward, the draft academic calendar be circulated among all faculty members, in addition to the Deans and HoDs.</td>
<td>Noted</td>
</tr>
<tr>
<td>58-4.2</td>
<td>To consider the revision in the guidelines for dealing with unfair means used by students in examinations.</td>
<td>Resolution No. Senate-58/2025/02: The Senate approved the unfair means guidelines and the standing Standard Operating Procedure (SOP). Additionally, the Senate authorized the Senate Chairman to make decisions on mercy applications for the concurrent cases.</td>
<td>Noted
Notified vide Office Order No. F4/S-V-1/25-26-Acad(58-Senate)/ 4796 dated 19-05-2025</td>
</tr>
<tr>
<td>58-4.3</td>
<td>To consider the following clarification the PG RR 2024.</td>
<td>Resolution No. Senate-58/2025/03:The Senate, after detailed deliberation, approved the following clarifications in the PG RR:
<table>
<tr><th>Clause No.</th><th>Existing provision</th><th>Senate decision</th></tr>
<tr><td>2.7.1 (b)</td><td>The DSC shall consist of:
• Convener, DSC
• At least three faculty members from the Department/ Centre concerned, preferably one each from among Professors, Associate Professors and Assistant Professors of the Department/ Centre
• One faculty from outside the Department nominated by the Chairperson, Senate</td><td>The DSC shall consist of:
• Convener, DSC
• At least three faculty members from the Department/ Centre concerned, preferably one each from among Professors, Associate Professors, and Assistant Professors of the Department/ Centre.
• In addition to the above members, the DPGC Convener and Head of Department shall also be the members of the DSC.
• One faculty from outside the Department nominated by the Chairperson, Senate</td></tr>
<tr><td>6.4.1(b) (vi)</td><td>A sponsored candidate, full-time or part-time, must have a total experience of more than two years and must have</td><td>A sponsored candidate, full-time or part-time, must have a total experience of more than two years and must have been in service of the</td></tr>
</table>
</td>
<td>Implemented</td>
</tr>
</table>

			been in service of the sponsoring organization for at least one year **at the time of admission.**	sponsoring organization for at least one year ***by the last date of application form***.	
		14.3 (b)	A PhD student can appear in the comprehensive examination only after i. completion of the coursework and securing the minimum **specified CGPA requirement**; and ii. completion of at least two semesters, excluding the period of any authorized semester leave.	A PhD student can appear in the comprehensive examination only after i. completion of the coursework and securing the minimum ***CGPA of 7.00 or more***; and ii. completion of at least two semesters, excluding the period of any authorized semester leave.	
		14.2	PhD Course-Work (a) All PhD students shall have to register for a defined number of courses, comprising the course-work, at the start of their PhD program. (b) The PhD student shall register for the coursework as per the recommendations of the respective supervisors. (c) The PhD course work shall normally be comprised of: **i.** One Core course of Research Methodology is mandatory for all candidates enrolled in the PhD program, notwithstanding the Department/ Centre of enrolment.	PhD Course-Work (a) All PhD students shall have to register for a defined number of courses, comprising the course-work, at the start of their PhD program. (b) The PhD student shall register for the coursework as per the recommendations of the respective supervisors. (c) The PhD coursework shall normally be comprised of: **i.** One Core course of Research Methodology is mandatory for all candidates enrolled in the PhD program, notwithstanding the Department/ Centre of enrolment. **ii.** One Elective course in Research Methodology offered by various Departments/Centres **iii.** Two or more PG courses of ***total credit 06 or more*** offered by various	

			ii. One Elective course in Research Methodology offered by various Departments/Centres iii. Two or more PG courses of 3 credits or more offered by various Departments/ Centres as per the requirement of the PhD program. iv. PhD students admitted with B.Tech. Degrees shall register for courses equivalent to 18 credits in addition to the compulsory research methodology courses.	Departments/ Centres as per the requirement of the PhD program. ***PhD students admitted with Master Degrees in Engineering Discipline, Architecture & Planning and Management Studies shall register for courses equivalent to 06 credits in addition to the compulsory research methodology courses.*** ***PhD students admitted with Master Degrees in Physics, Mathematics, Chemistry and Humanities and Social Sciences shall register for courses equivalent to 08 credits in addition to the compulsory research methodology courses.*** iv. PhD students admitted with B.Tech. Degrees shall register for courses equivalent to 18 credits in addition to the compulsory research methodology courses.	
58-4.4	To consider the Inclusion of the course "Optimization Techniques" in the list of program electives of the Department of Mathematics.		**Resolution No. Senate-58/2025/04:** After detailed deliberation, the Senate returned the proposal to the department for resubmission in the proper format and authorized the Chairman to approve it.		Noted and approved by the Chairman Senate.
58-4.5	To consider the proposal for awarding attendance to the student while representing the Institute in various sports events.		**Resolution No. Senate-58/2025/05:** The Senate did not approve the proposal and recommended that the sports and other events be scheduled during vacations. Additionally, the Senate suggested that the Dean of Student Welfare may convene a meeting with representatives from other NITs to organize these events during the summer and winter breaks.		Informed Dean Student welfare vide Endorsement No. 4797 dated 19-05-2025. Recommendation awaited
58-4.6	To consider the mercy request submitted by Mr. Lokesh Mahavar (2024RCY9021).		**Resolution No. Senate-58/2025/06:** The Senate did not approve the mercy request submitted by Mr. Lokesh Mahavar (2024RCY9021).		Noted

58-4.7	To consider the revised admission criteria for Ph.D. students under Institute Assistantship category.	**Resolution No. Senate-58/2025/07:** After detailed deliberation, the Senate decided that the candidates who have qualified for national-level eligibility tests/examinations, such as GATE, CSIR-NET, UGC-NET, etc., will be shortlisted for Interview. If deemed suitable, will be recommended for admission to PhD program with Institute Assistantship. However, candidates who have not qualified for any national-level eligibility tests/examinations, such as GATE, CSIR-NET, UGC-NET, etc., must appear for the institute-level written examination. These candidates will be eligible for the interview only after successfully qualifying for the institute-level written examination. If deemed suitable, will be recommended for admission to PhD program with Financial Assistantship. Further, the candidate selected based on the institute-level written examination and Interview may be allocated to Assistant Professors as supervisors. Additionally, it is mandatory to have a co-supervisor at the level of either an Associate Professor or a Professor. The number of financial assistantships will be subject to availability and approval by the competent authority. Further in PG Rules and Regulations 2024 Clause 2.13.2 (c) Number of PhD slots iv. "*Each eligible faculty member can have a maximum of three students registered for PhD Institute Assistantships, irrespective of the Departments/ Centres of the Institute.*" shall now be read as: "*Each eligible faculty member can have a maximum of three students*	Noted and Implemented Notified vide Office Order No. F4/S-V-1/25-26-Acad(58-Senate)/ 4793 dated 19-05-2025. Regarding implementation of financial assistantship approval of FC and BoG is pending

		registered for PhD Institute Assistantships/Financial Assistantships. ***Additionally, a faculty member can supervise only one student under the Financial Assistantship category at any given time, either as a supervisor or co-supervisor."*** The Senate also approved the proposal for direct Ph.D. admission for B.Tech graduates under Clause 6.6.1(b), modifying the existing criterion: The original clause *"Candidates with 80% marks or above, or an equivalent CGPA, in a Bachelor's degree in Engineering/ Architecture/Planning, and a valid GATE score may be recommended by the DPGC to the SPGB for admission to the Ph.D. program."* shall now be read as: *"Candidates with a Bachelor's degree in Engineering, Architecture, or Planning, securing 75% marks or above (or an equivalent CGPA), and either a valid GATE score or qualification in the institute-level entrance examination, may be recommended by the DSC to the SPGB for admission to the Ph.D. program after an interview for Institute Assistantship or Financial Assistantship."*	
58-4.8	To consider the case of Mr. Satwik Shyam Gupta for the award of B.Sc. degree.	**Resolution No. Senate-58/2025/08:** The Senate, after detailed deliberation, resolved that the exit options, eligibility criteria, and the awarding of the B.Sc. degree and diploma, as approved in the 44th Senate meeting under Item No. 44-3.1, be thoroughly reviewed by the Senate before submission for approval to the Board of Governors (BoG). The curriculum structure under NEP 2020 was implemented from the academic session 2022-2023. However, in the 57th Senate (Emergent) meeting, it was decided that students already enrolled would be considered on a case-by case basis, based on the recommendation of	Noted. To review the new scheme as per NEP 2020 the Item is placed at Item No. 59-3.22

		the concerned department. Accordingly, the case of Mr. Satwik Shyam Gupta, admitted in the 2020-2021 session for the award of a B.Sc. degree, was discussed. After deliberation, the Senate resolved that his case could not be recommended for the award of the B.Sc. degree.	
58-4.9	To consider the proposal of a new M.Tech. programme in "Semiconductor Materials and Devices", submitted by the Material Research Centre.	**Resolution No. Senate-58/2025/09:** The Senate suggested to conduct a curriculum development workshop and come up with a new detailed proposal.	Informed Head MRC vide Endorsement No. 4797 dated 19-05-2025
58-4.10	To consider the minor correction in the name of the student after admission to the Institute.	**Resolution No. Senate-58/2025/10:** After detailed deliberation, the Senate approved the proposal for minor corrections in a student's name after admission to the Institute, following the legal procedures.	Noted and Implemented
58-4.11	To consider the fee refund policy of the institute.	**Resolution No. Senate-58/2025/11:** The Senate deliberated and approved the proposed fee refund policy.	Noted and implemented vide Office Order No. F4/S-V-1/25-26-Acad/ (58-Senate)/4795 dated 19-05-2025
58-5.0	Items for reporting		
58-5.1	To note the final Rules and Regulations Manual for the conduct of UG programs at the Institute.	Noted	Noted
58-5.2	To note the minutes of the 65th, 66th, 67th and 68th (Special) meeting of SPGB.	Noted	Noted
58-5.3	To note the minutes of the 47th meeting of SUGB.	Noted	Noted
58-5.4	To note the minutes of the 47thmeeting of the Academic Affairs Committee held on 13.02.2025.	Noted	Noted
58-5.5	To note the list of Ph.D. students terminated from Institute rolls who scored a CGPA less than 07 in the academic year 2024-25.	Noted	Noted

58-5.6	To note the termination of Ph.D. student Mr. Sandeep Shukla (2020RME9599) from the Ph.D. program.	Noted	Noted Notified vide Office Order No. F4/S-V-1/25-26-Acad(58-Senate)/ 4794 dated 19-05-2025
58-5.7	To note the termination of enrolment of Mr. Abhishek Singh (2024UCE1495), provisionally admitted under the PwD category in B.Tech. (Civil Engineering) programme at MNIT Jaipur.	Noted	Noted
58-5.8	To note the minor typographical errors in clause 14.7 of the PG Rules and Regulation 2024.	Noted	Noted
58-6.0	Any other items with permission of chair		
58-6.1	To consider the increase in the intake of B.Tech. AIDE program from the session 2025-26.	Resolution No. Senate-58/2025/12: The Senate recommended sending a proposal to the Ministry of Education for additional seat allocation.	Noted
58-6.2	To consider the scheme and syllabus two new M. Tech. programmes, namely Chemical Engineering and Sustainability (CE&S) and Petrochemicals and Polymer Technology (PC&PT).	Resolution No. Senate-58/2025/13: The Senate authorized the Chairman Senate to approve course proposals upon receiving recommendations from the SPGB.	Noted

Item No. 59-3.0: Items for consideration.

Item No. 59-3.1:To consider the proposal for Engaging Senior Undergraduate Students as Teaching Assistants.

The matter regarding Engaging Senior Undergraduate Students as Teaching Assistants was proposed in 49th SUGB meeting under Item No. 49-3.4. The proposal is as under:

For in-depth learning of tutorial and laboratory sessions, and to create structured peer learning opportunities, it is proposed to introduce a Teaching Assistantship Scheme for undergraduate students. This initiative will allow academically strong senior students to support faculty members in engaging tutorials and labs while simultaneously reinforcing their own understanding of course material and will promote a culture of peer learning among students.

Scheme Outline:

Call for Applications from Faculty:

- *Faculty members who wish to avail the support of Teaching Assistants (TAs) may apply through a formal call circulated by the Dean Faculty office.*
- *A maximum of one TA per faculty member will be permitted under this scheme.*

Eligibility Criteria for Student TAs:

- *Only 3rd year and final year UG students with a CGPA of 8.0 or above are eligible.*
- *The role is strictly supportive and under the supervision of the assigned faculty member.*

Scope of Work:

- *Assisting the Course coordinator in tutorial or laboratory classes.*
- *Providing guidance to junior students during problem-solving sessions and practical exercises.*
- **Assisting the faculty in the creation of learning content**, *preferably in the form of:*
  Animations (e.g., visual explanations of concepts), Interactive codes and simulations

Engagement Hours:

- *TAs may be engaged for up to 4 hours per week during the semester.*

Honorarium and Certification:

- *A certificate of Teaching Assistantship will be issued upon successful completion of duties.*
- *A modest financial assistance will be offered, the amount of which will be determined by the competent authority depending on institutional policies.*

Selection Process:

- *Interested students must apply via a standard application form.*
- *Selection will be based on academic performance, and recommendation from DUGC and supervising faculty.*

Feedback:

- *The supervising faculty will monitor the TA's performance and submit a brief assessment at the end of the semester.*
- *Feedback will be collected from students to evaluate the overall effectiveness of the TA's involvement.*

Benefits of the Scheme:

- **For Junior Students:** The presence of approachable senior students during tutorials and labs can **encourage juniors to freely clarify doubts** that they might otherwise hesitate to discuss with professors.
- **For Senior Students (TAs):** The engagement offers an opportunity to **deepen their subject knowledge**, reinforce concepts, and develop teaching and communication skills that are valuable for future academic or professional pursuits.
- **For Faculty:** The support from TAs can enhance student engagement and allow more individualized attention during lab and tutorial sessions, and the development of high-quality supplementary material for future use.
- **For the Institute:** The creation of a **content repository** (animations, code, etc.) will serve as a valuable academic resource over time.

SUGB in its 49th meeting under Item No. 49-3.4 recommended the proposal for Engaging Senior Undergraduate Students as Teaching Assistants to the Senate for its consideration and approval.

Item is placed for consideration and approval.

Item No. 59-3.2: To consider the proposal of MRC for the Inclusion of Four Open Elective Courses in the New UG Scheme.

The following courses were initially approved as program electives under the M.Tech program "Materials Science and Engineering" offered by the Materials Research Centre (MRC). These courses have also been consistently offered as open electives for undergraduate (UG) students.

Course Code	Course Name	Credits (L-T-P)
21MST501	Design of Materials	3-0-0
21MST817	Energy Materials and Their Application	3-0-0
21MST805	Introduction to Soft Materials	3-0-0
21MST822	Nanomaterials Technology	3-0-0

As the M.Tech program in "Materials Science and Engineering" has been inactive for the past two academic years, these courses have effectively served only as open electives for UG programs.

These courses have been active for the last four years with a good number (60) of registered students from different UG programs like Chemical, Mechanical, Civil, Electrical, Metallurgical and Material Engineering, etc.

SUGB in its 49th meeting under Item No. 49-3.5 recommended the proposal of MRC for the Inclusion of Four Open Elective Courses in the New UG Scheme to the Senate for its consideration and approval.

Detailed scheme and Syllabus is placed at **Annexure-B (Page 39 to 45).**

Item is placed for consideration and approval.

Item No. 59-3.3: To consider the proposal submitted by the Department of Civil Engineering to offer Program Electives/Open Electives for the Odd semester 2025-26.

The new scheme and syllabus of UG programmes were placed in 51st Senate meeting. The Senate authorized the Chairman Senate to approve the scheme and syllabus after incorporating minor modifications and the same were approved on 09th August 2023. The department of Civil Engineering had not submitted the list of program electives and open electives to be offered in 7th and 8th Semester B.Tech. Civil Engineering at that time of approval. In the 49th SUGB meeting (Item No. 49-3.7), the SUGB approved and recommended the scheme and syllabus of program electives and open electives which are of 3 credits (3-0-0) to the Senate for consideration and approval.

The detailed scheme and syllabus are placed at **Annexure–C (Page 46 to 68).**

Item is placed for consideration and approval.

Item No. 59-3.4: To consider the proposal to allow a Joint Faculty member to serve as the Main Supervisor for PhD students in a Department/Centre that does not have any Regular Faculty.

As per the current provision under Rule 2.13.2.1(b) of the PG Regulations 2024:

"The main supervisor shall always be from the department's regular faculty wherein the student has registered for his/her degree."

This requirement poses a challenge in Departments/Centres that have no regular faculty members and are staffed exclusively by joint faculty. In such cases, the restriction prevents the appointment of main supervisors, despite the availability of qualified and competent joint faculty members.

To address this limitation, it is proposed to include the following clause under Section 2.13.2.1 of the PG Regulations 2024:

"A joint faculty member may act as a co-supervisor in the recipient Department/Centre. However, in the absence of any regular faculty in the recipient Department/Centre, a joint faculty member may also serve as the main supervisor for a student registered in that Department/Centre."

Item is placed for consideration.

Item No. 59-3.5: To consider the proposal to clarify minimum eligibility criterion for PG/Ph.D. admissions.

The CCMT Information Brochure, Ph.D. admission brochure of Institute and other Institute documents are as under:

CCMT Information Brochure	PG RR 2024	Advertisement of Faculty Recruitment of the Institute
6.5 CGPA (on a 10 point scale) or 60% for GEN/GEN-EWS/OBC and 6.0 CGPA or 55% for SC/ST/PwD candidates	Clause 6.3(d)/ Clause 6.6 (b) states that: The "specified minimum marks" implies a minimum of 60% marks or equivalent CGPA for Gen/OBC/	Clause-15 First class in preceding degrees. In case first class is not mentioned in the preceding degrees, then the candidates

	EWS candidates and a minimum of 55% marks or equivalent CGPA for SC/ST/PwD candidates in the qualifying degree.	Should have passed and secured at least 6.5 CGPA (on a 10-point scale) or 60% marks in aggregate.

To resolve this inconsistency, it is proposed to adopt a standardized eligibility criterion across all institutional documents and communications, based on a review of relevant guidelines followed by various NITs:

The "specified minimum marks" implies that candidates must have passed with either First Class, or a minimum of 6.5 CGPA (on a 10-point scale), or 60% marks in aggregate for GEN/GEN-EWS/OBC candidates, and a minimum of 6.0 CGPA or 55% marks in aggregate for SC/ST/PwD candidates in the qualifying degree.

Item is placed for consideration.

Item No. 59-3.6: To consider the proposal to introduce two new Program Electives by the Centre for Energy and Environment.

The Centre for Energy and Environment has proposed two new electives:

1. *Thermal Management in Electric Vehicles (3-0-0)*
2. *Sustainability Studies (3-0-0)*

As per SPGB directives (67th meeting), review committees were formed to assess course titles, schemes, and syllabi. Both committees unanimously endorsed the proposed courses without any changes.

However, the SPGB (69th meeting) requested a revision to course outcomes, lecture plans, and references. The Centre submitted the revised proposal, which the SPGB (70th meeting), the same was approved and recommended to the Senate for approval.

The scheme and syllabus are placed at **Annexure-D (Page 69 to 76).**

Item is placed for consideration and approval.

Item No. 59-3.7: To consider the list of subjects proposed by the Department of ECE as RM II courses to be offered as open electives for Ph.D. students of the Institute.

The Department of Electronics and Communication Engineering (ECE) proposed the following courses to be offered as RM II open electives for Ph.D. students:

1. *(21ECT564)* Modeling, Optimization & Transforms
2. *(21ECT544)* Reduced-order Modeling, Optimization & Machine Intelligence
3. *(21ECT856)* Modeling Simulation for Communication Engineering

A committee comprising faculty from ECE, CSE, Mathematics, and Mechanical Engineering reviewed the titles, schemes, and syllabi and submitted its recommendations to SPGB. The SPGB (69th meeting) recommended these courses for Senate approval as RM II open electives for Ph.D. students.

The Scheme and Syllabus are placed at **Annexure- E (Page 77 to 83).**

Item is placed for consideration.

Item No. 59-3.8: To consider the termination of Inactive UG Students who are not registered/absent for more than 2 semesters.

The issue of inactive UG students was first discussed in the 47th SUGB meeting (Agenda Item 47-5.2) held on 23rd and 27th January 2025. After detailed deliberation, the SUGB recommended that the respective DUGC Conveners personally contact the concerned students and encourage them to complete their degrees. Accordingly, request emails were sent to the relevant DUGCs to initiate contact and explore possible re-engagement.

After receiving responses from the respective DUGCs it was further discussed in the 48th SUGB meeting (Agenda Item 48-3.1) held on 09th April 2025. The SUGB recommended the termination of students who have been absent for more than two semesters, in line with UG Regulations.

As per UG Rules & Regulations, Clause 14 (b) & (c), a student's enrollment may be terminated if they:
(b) Are absent without authorized leave for a major part of the semester and fail to appear in end-semester exams, or
(c) Do not report or register by the last date of registration.

A list of 17 such students, along with their academic and registration status, is placed for termination at **Annexure-F (Page 84).**

Item is placed for consideration.

Item No. 59.3.9: To consider the Common Framework and Guidelines for Audit Courses.

In line with the institution's policy that audit courses are optional and supplementary to the prescribed academic load, this item seeks to establish formal guidelines to resolve discrepancies, particularly those related to so-called "compulsory audit courses," and to preserve the intended structure and purpose of audit offerings.

The matter was initially discussed in the 46th SUGB meeting, following which a committee was constituted to draft appropriate guidelines. The committee recommendations were presented in the 48th SUGB meeting, where after due deliberation the SUGB endorsed the proposed guidelines for approval by the Senate.

The proposed audit course guidelines are enclosed in **Annexure–G (Page 85).**

Item is placed for consideration.

Item No. 59-3.10: To consider correction in the UG RR's 2024 clause no. 13.5 Exit Options.

The matter was discussed in the 48th SUGB meeting under Item No. 48-5.2. The SUGB recommended the correction as per the approved Senate minutes.

A correction is required in Clause No. 13.5, *Exit Options*, Table 3, S. No. 2, Column 2. The term **"B.Sc. (Engg.) Degree"** should be replaced to **"B.Sc. Degree"**, in accordance with the minutes of the 44th Senate meeting (Annexure-I), placed at **Annexure–H (Page 86 to 90).**

The matter was discussed in the 48th SUGB meeting under Item No. 48-5.32. The SUGB recommended the correction as per the approved scheme.

Item is placed for consideration.

Item No. 59-3.11: To consider the proposal for a New Centre for Indian Knowledge Systems at MNIT Jaipur.

The Centre for Indian Knowledge Systems will put into place a research development practice paradigm of Indian knowledge Systems that could play a vital role in enriching education. Its mission is to create new knowledge and skills to build capacity for a sustainable knowledge system. This paradigm advocates progress tempered with environmental conservation and sustainable ecological practices. By using a scientific process that is rigorous and systemic, research in these knowledge systems will then be disseminated into cutting-edge professional development programmes.

The Centre for Indian Knowledge Systems will focus on several different research and practice areas that will evolve as the Centre grows and formulates over next several years. The following ten areas of study that have been identified at its inception include:

(1) Science, Engineering and Technology
(2) Indian classical Music and Drama
(3) Metallurgy and Metal Winning
(4) Cow based Agriculture for sustainable growth
(5) Tribal upliftment and eradication of evils in their society
(6) Health and Wellness
(7) Indian traditional knowledge base
(8) Ayurveda, Yoga and Naturopathy
(9) Vedic Mathematical Knowledge
(10) Science behind Mantras, Dhyanam, Hawan etc

It is proposed that the Institute may focus on three to four key areas from the above fields and consult with other NITs/IITs.

Item is placed for consideration.

Item No. 59-3.12: To consider the proposal for Ph.D. admission through Rolling Advertisement.

At Present, Ph.D. admissions are conducted in odd and even semesters, due to which the potential candidates with national fellowships or suitable profiles have to wait several months for the next admission window.

Some IIT have implemented a Rolling Admission model, specifically for candidates who have been awarded national fellowships (JRF from CSIR/UGC/DBT/ICMR/DST INSPIRE, etc.) within the **last six months**. This model allows departments to admit students throughout the

year, improving the utilization of research resources and minimizing delays in talent acquisition. The Students will have the opportunity to apply and be considered for admission as soon as they are eligible.

The Rolling Advertisement mechanism for Ph.D. admissions offers multiple institutional and academic benefits. It ensures that departments do not lose out on talented candidates simply due to the rigidity of fixed admission cycles. Many highly qualified candidates, especially those who secure prestigious national fellowships, often miss opportunities to join institutes because the fellowship award timing does not align with admission windows. A rolling system bridges this gap and ensures continuous engagement with potential researchers.

Moreover, this model supports strategic research planning. Departments and faculty members often have time-bound research projects and sponsored funding that require immediate on boarding of scholars. Rolling admissions allow for a just-in-time approach to hiring research personnel, leading to better resource utilization and project continuity.

Furthermore, the system reduces administrative bottlenecks by decentralizing the selection process. Rather than processing a large volume of applicants at fixed intervals, departments can evaluate candidates on a need basis. This contributes to more focused screening and improves the quality of student-supervisor alignment. It also offers candidates a more flexible and candidate-friendly process, reducing wait times and increasing satisfaction.

Item is placed for consideration.

Item No. 59-3.13: To consider the recommendations of the committee constituted to revise internship guidelines.

A committee was constituted vide office order no.F.4/S.VIII-I/23-24-Acad (SUGB)/3287 dated 01.01.2024 to revise the internship guidelines. Committee discussed the matter in the meetings dated March 13, 2024 and May 21, 2024. The recommendations of the committee was placed in the 46th SUGB meeting. The SUGB circulated the recommendation to all departments for comments on the proposal.

The recommendation were again placed in 48th SUGB meeting, the SUGB approved and recommended to the Senate the revised guidelines of internship.

The revised guidelines are placed at **Annexure-I (Page 91 to 94).**

Item is placed for consideration and approval.

Item No. 59-3.14: To consider the mercy petition of Ph. D. Student Mr. Anand Kumar Jain (2023RCP9026) regarding the comprehensive examination.

Mr. Anand Kumar Jain (2023RCP9026), a fourth-semester Ph.D. student under the PWD category, supervised by Dr. Neeta Nain, completed his coursework with a 7.80 CGPA and has published four Scopus-indexed conference papers, with one journal paper under review. He missed the deadline for his comprehensive exam due to a lack of awareness regarding the rules and the unavailability of his supervisor, who was on frequent leave due to health issues.

As per PG Regulations (2022 & 2024), missing the comprehensive exam deadline leads to automatic termination unless a mercy appeal is approved. Mr. Jain submitted such a mercy appeal, which was supported by his supervisor and recommended by DREC and DPGC.

He was provisionally allowed to take the comprehensive exam and State-of-the-Art Seminar on 27–28 May 2025, which he successfully completed. The matter was placed before the 71st SPGB meeting (Item 71-3.12), SPGB recommended to consider the mercy appeal to the Senate.

S. No.	Name & ID	Recommendation & Justification of DPGC, if any	Recommendation of SPGB	Justification of SPGB
1.	Mr. Anand Kumar Jain (2023RCP9026)	**Recommended** 1. Mr. Anand Kumar Jain (2023RCP9026) was admitted under the PWD category. 2. He completed his coursework with a 7.80 CGPA. 3. He has published 4 papers in Scopus-indexed conferences & 1 Journal paper is under review. 4. He has clearly defined his problem and is ready to take the comprehensive examination. 5. The delay in conducting the comprehensive examination was due to personal reasons of the supervisor, and due to the oversight of the rule position by the student. 6. Supervisor and DREC members have recommended the mercy appeal.	**Recommended**	In view of the student's satisfactory academic progress, and recognizing that the delay was primarily due to the supervisor's personal exigencies (health and family issues) as well as an oversight of the relevant rules and timelines by both the supervisor and the student, the SPGB has recommended that the mercy petition be forwarded to the Senate for consideration.

Item is placed for consideration and approval.

Item No. 59-3.15: To consider mercy request of the student Ankit Kumar Mundotiya (2024PMA5394) submitted by the Department of Mathematics.

Mr. Ankit Kumar Mundotiya (2024PMA5394) joined the institute in the academic year 2024-25 and has scored a CGPA of 5.24 in II Semester and was terminated in 70th SPGB. He submitted a mercy request. The mercy request was discussed in 71st SPGB meeting under Item No.71-3.4, the SPGB recommendations are as follows:

S. No.	Name & ID	Recommendations and Justification of DPGC, if any	Recommendation of SPGB	Justification of SPGB
1.	Ankit Kumar Mundotiya (2024PMA5394) CPGA 5.24	Mr. Ankit Kumar Mundotiya was unable to perform due to his medical conditions, as stated in his application. He has been regular in the classes could not achieve a minimum CGPA of 5.5 to continue in the second semester. **DPGC recommended re-registration in the academic year 2025-26.**	Recommended	Due to his medical conditions, the SPGB recommended that Mr. Ankit Kumar Mundotiya be may be given an opportunity to re-register in 1st Semester and repeat all the courses.

Item is placed for consideration.

Item No. 59-3.16: To consider the mercy request for a semester extension of Ph.D. registration, submitted by Mr. Arvind Kumar Thakur (2018RME9040).

Mr. Arvind Kumar Thakur (2018RME9040), a full-time Ph.D. scholar under Dr. Dinesh Kumar, joined on 23rd July 2018 and completed his comprehensive exam on 31st December 2019. With two SCI-indexed publications, he is currently in the thesis writing stage.

Due to a post-comprehensive topic change and serious family emergencies (including his wife's miscarriage and a dependent's injury), he was unable to complete his thesis on time. He submitted a mercy appeal for a one-semester extension to register for the 15th semester (Odd Semester 2025–26).

DPGC reviewed his case under Clause 19.1(ii) of PG Rules and found the request justified. The 71st SPGB (Item 71-3.8) endorsed the extension and recommended it for Senate approval.

S. No.	Name & ID	Justification and recommendations of DPGC, if any	Recommendation of SPGB	Justification of SPGB
1.	Mr. Arvind Kumar Thakur (2018RME9040)	The DPGC reviewed his progress and considered the reasons for the delay. In light of the medical and family-related circumstances, the DPGC found the request justified and **recommended** approval of the mercy extension under Clause 19.1 (ii) of the PG Rules & Regulations, which allows for "extension in the duration of the academic program beyond the maximum permissible duration."	Recommended	In light of the medical and family-related circumstances and the DPGC recommendation, the SPGB endorsed the mercy extension request for one additional semester of Ph.D. registration for Mr. Arvind Kumar Thakur and recommended it for Senate consideration and approval.

Item is placed for consideration.

Item No. 59-3.17: To consider the matter regarding the mercy application of Ph.D. scholar Mr. Kuldeep Saini (2024REE9065) in the Department of Electrical Engineering.

Mr. Kuldeep Singh (2024REE9065) joined the institute in the academic year 2024-25 and has scored a CGPA of 6.73 after II Semester. He submitted a mercy request. The mercy request was discussed in 71st SPGB meeting under Item No. 71-3.10 and recommendations are as follows:

S. No.	Name & ID	Justification and recommendations of DPGC, if any	Recommendation of SPGB	Justification of SPGB
1.	Kuldeep Saini (2024REE9065) CGPA 6.73	Mr. Kuldeep Saini (2024REE9065) was admitted in the Ph.D. program in the department of Electrical Engineering during Odd Semester 2024-25 (July 2024). In his first semester he took two courses (total of 5 credits) and obtained a CGPA of 8.00 and in his second semester he again took two courses (total of 06 credits) and secured a CGPA of 6.73 after second semester, due to sudden death of his family member and serious health related challenges during examination period.	**Recommended**	Due to the sudden death of a family member of Mr. Kuldeep Saini and serious health-related challenges during the examination period, the SPGB recommended that Mr. Kuldeep Saini (2024REE9065) may be given an opportunity to re-register in the 1st Semester and repeat all the courses.

		The DPGC, considering the facts, recommended his application to allow him to re-register in the Ph.D. program.		

Item is placed for consideration.

Item No. 59-3.18: To consider the matter regarding the mercy application of Ph.D. scholar Mr. Kushagra Sharma (2024REC9508), Department of Electronics and Communications.

Mr. Kushagra Sharma (2024REC9508) joined the institute in the academic year 2024-25 and has scored a CGPA of 6.20 in 1st Semester. He submitted a mercy request. The mercy request was discussed in 71st SPGB meeting under Item No. 71-3.9 and recommendations are as follows:

S. No.	Name & ID	Justification and recommendation of DPGC, if any	Recommendation of SPGB	Justification of SPGB
1.	Kushagra Sharma (2024REC9508)	Mr. Kushagra Sharma failed to provide sufficient justification for not performing well in the subject. Therefore, the DPGC does not recommend the case.	Not recommended	No valid justification has been provided by the student for his poor performance

Item is placed for consideration.

Item No. 59-3.19: To consider the mercy appeal submitted by Mr. Rajesh Saini (2024PES5450) for continuation of M.Tech. (Power Systems) programme.

Mr. Rajesh Saini (2024PES5450) has submitted a mercy request and mentioned that "**due to some unavoidable circumstances",** he could not obtain the minimum CGPA requirement. He was admitted in M.Tech. (Power Systems) programme in the Department of Electrical Engineering in Academic Year 2024 under the Part-time Staff (MNIT) category. He obtained an SGPA/CGPA of 5.33 in his first semester (2024-25 Odd semester), less than the required CGPA for the semester promotion. Hence, he was terminated from the PG program by office order dated 25.02.2025.

The mercy request was discussed in 71st SPGB meeting under Item No.71-3.1, and after deliberation, the SPGB referred Mr. Rajesh Saini's mercy appeal (2024PES5450) back to the department for appropriate justification. Additionally, the SPGB authorized the Chairman SPGB to take a decision on the appeal for further recommendation to the Senate. The recommendations received from the DPGC were placed

before Chairman SPGB. The Chairman of SPGB did not recommend the mercy request of Mr. Rajesh Saini. The recommendations of DPGC and SPGB are as under:

S. No.	Name & ID	Recommendation & Justification of DPGC, if any	Recommendation of SPGB	Justification of SPGB
1.	Mr Rajesh Saini (2024PES5450)	Not recommended Due to no proper justification from the student side, his mercy application for re-registration for M. Tech (Power Systems) is not recommended.	Not recommended	No valid justification has been provided by the student for his poor performance.

Item is placed for consideration.

Item No. 59-3.20: To consider the mercy request of UG students.

The recommendations of DUGC and SUGB are as under:

S. No.	Name & ID	Recommendation & Justification of DUGC, if any	Recommendation of SUGB	Justification of SUGB
1.	Mr. Udbhav Navin Chitransh (2019UMT1269) CGPA 5.72	Recommended Mr. Udbhav Navin Chitransh (2019UMT1269) was continuously absent from the institute, past four semesters (2023-24 and 2024-25). He did not register after his 8th semester. Mr. Udbhav Navin Chitransh has earned 191 credits upto 8th semester out of 199 credits for the degree. Only 2 courses of 4 credits each are required to be registered and earn for the B. Tech. degree. The DUGC recommended his mercy request along with two additional semester withdrawal over and above maximum allowed limit.	Recommended	The student is required to register and earn only 2 courses to complete his degree.
2.	Mr. Anmol Bhandari (2019UCH1562) The minimum credit	Recommended As per the decision of SUGB in its 47th meeting the DUGC contacted the students over telephone Mr. Anmol Bhandari	Recommended	Student is willing to complete his degree he may be permitted to register in special

	requirement for the program is 194. The student has earned 193 credits, with one course pending. The current CGPA is 5.16.	responded and expressed his willingness to register for incomplete course in the Supplementary exam to complete his degree.		supplementary examination or next semester.
3.	Mr. Satyam Kumar (2020UCP1021) The minimum credit requirement for the program is 200. The student has earned 98 credits so far, while 102 course credits are required to complete the degree. The current CGPA is 3.82	Recommended As per the decision of SUGB in its 47th meeting the DUGC contacted the students. The student has stated here that he was suffering from a lot of short term depression, low feelings, shyness, fear, anxiety etc. at the end of his 03rd semester, he go back to his home because he had not energy left to deal with those alone. Through an application he stated that he is now calm, composed and in control and wants to continue his B.Tech. Degree. The DUGC has recommended Mr. Satyam Kumar (2020UCP1021) may be allowed to continue his B.Tech. Degree.	Recommended	Student is willing to complete his degree he may be permitted to register from next semester and complete his B. Tech. degree within stipulated period.
4.	Mr. Aditya Raj (2020UEC1789) The minimum credit requirement for the program is 201. The student has earned 87 credits, with 114 course credits remaining to complete the degree. The current CGPA is 5.54.	Recommended As per the decision of SUGB in its 47th meeting the DUGC contacted the students. The student has informed that the reason of his absence is due of a serious accident and subsequent health issues. Now, he is requesting for a mercy to allow him to re-join his B. Tech. degree. The DUGC of ECE recommended the mercy plea of the student to allow him to continue his B.Tech. Degree.	Recommended	Student is willing to complete his degree he may be permitted to register from next semester and complete his B. Tech. degree within stipulated period.

Item is placed for consideration and approval.

Item No. 59-3.21: To consider the matter of Ms. Dhanavath Keerthi (2023UMT1473) regarding termination from the Institute's roles.

Ms. Dhanavath Keerthi (2023UMT1473) was admitted in the B.Tech. Metallurgical and Materials Engineering program at MNIT Jaipur in the academic year 2023-24. During her first year (AY 2023-24), she failed to earn a minimum of 30 credits required for promotion to II Year, due to which she was put on Year-Back and had studied all courses of first year as a fresh student. In her II year (Academic Year 2024-25) she again failed to earn minimum credits required for promotion to the next year.

As per the Institute's UG Rules and Regulations Manual 2024, **Clause 14** (Termination of Enrolment to the Program),Enrolment of a student of the UG program may be terminated by the Senate "if *the student is unable to earn 30 credits in first year of UG program even after being placed on year back.*" **[sub-clause (d)]**

SUGB in its 49th meeting under Item No. 49-3.3 recommended the termination of Ms. Dhanavath Keerthi (2023UMT1473) from the Institute's roles for consideration and approval of the Senate.

Item is placed for consideration and approval.

Item No. 59-3.22: To consider to review the scheme of UG programmes as per NEP Compliance.

In the 58th Senate meeting, the Senate decided to review the scheme of UG Programmes before submitting to the BoG for approval of awarding diplomas/B.Sc. degree as per the exit option approved in the 44th Senate meeting. To ensure compliance with NEP-2020, the following components needed to be included in the scheme:

- **Definition of academic levels** (e.g., Level 5.5, Level 6, Level 7, Level 8) as per the National Higher Education Qualifications Framework (NHEQF) to clearly indicate the learning outcomes and academic progression.
- Integration of **skill-based and value-added courses** to enhance employability and practical competencies.
- Incorporation of **Indian Knowledge Systems (IKS)** and relevant contextual content into appropriate courses.
- Enabling the **Multiple Entry and Exit framework** with suitable curriculum pathways and exit options with certification.
- Promotion of **multidisciplinary and flexible curricula** with appropriate mechanisms for credit transfer and recognition.
- Exploring the **possibility of allowing students from other institutions** to pursue one or two semesters at MNIT, under frameworks such as **Academic Bank of Credits (ABC)** and **student mobility provisions of NEP**, to promote inter-institutional learning and collaboration.
- Adoption of online, blended, and hybrid modes of instruction, where appropriate, in line with the Digital India and NEP vision.

- **Revision of total credit requirements** for B. Tech. degree, in line with NEP guidelines and National Credit Framework (NCrF).

As per above guidelines the existing scheme of UG programmes may be reviewed.

Item is placed for consideration.

Item No. 59-4.0: ***Items for ratification***

Item No. 59-4.1: To ratify the seat matrix for admission to various UG programs for the Academic Session 2025-26.

The seat matrix of the UG programs for admission for the Academic Session 2025-26 was to be communicated to the JoSAA/CSAB. The seat matrix, as communicated for admission for the academic session 2025-26, is placed at **Annexure-J (Page 95 to 96)**.

Item is placed for ratification.

Item No. 59-4.2: To ratify the seat matrix for admission to PG programs for the Academic Session 2025-26.

The seat matrix of the PG program for admission for the Academic Session 2025-26 was to be communicated to the CCMT and CCMN, the coordinating Institute. The seat matrix, as communicated for admission for the academic session 2025-26, is placed at **Annexure- K (Page 97 to 98)**.

Item is placed for ratification.

Item No. 59-4.3: To ratify the seat matrix for admission to UG and PG programs (DASA) for the Academic Session 2025-26.

The seat matrix of the UG and PG program for admission for the Academic Session 2025-26 was to be communicated to the DASA, the coordinating Institute. The seat matrix, as communicated for admission for the academic session 2025-26, is placed at **Annexure- L (Page 99 to 99 (i & ii)**.

Item is placed for ratification.

Item No. 59-4.4: To ratify the scheme and syllabus two new M. Tech. programms, namely Chemical Engineering and Sustainability (CE&S) and Petrochemicals and Polymer Technology (PC&PT).

In the 58th meeting of the Senate, the scheme and syllabus for the two new M. Tech. programms, namely Chemical Engineering and Sustainability (CE&S) and Petrochemicals and Polymer Technology (PC&PT) were placed. The Senate authorized the Chairman Senate to approve the course proposals upon receiving recommendations from the SPGB. The SPGB in its 69th SPGB meeting under Item No. 69-3.3, recommended the scheme and syllabus of two new M. Tech. programmes, Chemical Engineering and Sustainability (CE&S) and Petrochemicals and Polymer Technology (PC&PT) to the Senate for approval with minor modifications in the submission format. The same were approved by the Chairman Senate before being included in the CCMT Seat Matrix for admission 2025-26.

Item is placed for ratification.

Item No. 59-5.0: ***Items for reporting.***

Item No. 59-5.1: To note the list of M.Tech. Students terminated from the Institute roles who scored a CGPA less than 5.5 in the academic year 2024-25.

A total of 03 students of respective departments have scored less than 5.5 CGPA due to poor performance in the academic year 2024-25.

Rule position:

As per PG Rules and Regulations, clause 13.2 (b) Minimum Credits/ CGPA Requirements for PG Programs, "A student shall be promoted to the next semester only if he/ she has cleared at least 75% of the courses registered in a semester and has a CGPA above 5.5."

SPGB in its 71st meeting under Item No.71-3.3, approved the termination of 03 students who secured a CGPA less than 5.5 in the odd semester/even semester examination 2024-25.

The details of PG Students whose enrolment is terminated are as follows:

S. No.	Student Id	Student Name
1.	2024PCV5182	Tamalika Das
2.	2024PAR5232	Shahbaz Ahmad
3.	2024PMA5394	Ankit Kumar Mundotiya

Item is placed for information.

Item No. 59-5.2: To note the cases of Ph.D. students terminated from the Institute roles due to absence without authorized leave.

A total of 03 students of respective departments are absent from the institute without authorized leave:

Rule No. 11.7 of PG RR 2024 (Absence without Authorized Leave)

(a) Absence without authorized leave for more than three weeks shall entail loss of financial assistantship for the period of absence.
(b) **Absence without authorized leave for more than three weeks may result in the termination of the student's enrolment in the program on the recommendation of the DPGC and approval of SPGB.**
(c) The DPGC of the concerned Department/ Centre shall make all possible efforts to contact such students (on unauthorized leave) and try to understand and resolve the reasons for absence before recommending their termination to the SPGB

The SPGB, in its 71st meeting under Item No. 71-3.6, approved the termination of enrolment of 05 students who secured a CGPA of less than 07 in the odd semester 2024-2025.

The details of Ph.D. Students whose enrolment is terminated are as follows:

S. No.	Student Id	Student Name
1	2021REC9050	Sujeet Kumar Gupta
2	2024RME9103	Vaibhav Gupta
3	2024RME9107	Kashif Saifi

Item is placed for information.

Item No. 59-5.3: To note the list of Ph.D. students terminated from the Institute roles who scored a CGPA less than 7.0 in academic year 2024-25.

A total of 02 students of respective departments have scored less than 7.00 CGPA due to poor performance in the academic year 2024-25.

Rule position:

As per PG Rules and Regulations, clause 14.7 Minimum Academic Performance for Semester Promotion in PhD Program "A student shall not be allowed to continue in the PhD program in case of any of the following or a combination thereof: (i) the student has secured a CGPA less than 7.0".

SPGB in its 71st meeting under Item No.71-3.7, approved the termination of 02 students who secured a CGPA less than 7.00 in the academic year 2024-25.

The details of Ph.D. Students whose enrolment is terminated are as follows:

S. No.	Student Id	Student Name
1.	2024REE9065	Kuldeep Saini
2.	2024REC9508	Kushagra Sharma

Item is placed for information.

Item No. 59-5.4: To note the minutes of meeting of the unfair means committee held on 02.09.2024, 17.12.24, 09.01.2025, 16.01.2025, 19.03.2025 (02) and 13.05.2025.

The minutes of the meetings of the Unfair Means Committee held on 02.09.2024, 17.12.24, 09.01.2025, 16.01.2025, 19.03.2025 (02) and 13.05.2025 are placed for information to the Senate **(Annexure –M, Page 100 to 107).**

Item is placed for information.

Item No. 59-5.5: To note the minutes of the 69th, 70th and 71st meeting of SPGB.

Minutes of the 69th, 70th and 71st meeting of SPGB held on 02.04.202, 15.05.2025 and 04.07.2025 are placed for information to the Senate. **(Annexure -N, Page 108 to 117).**

Item is placed for information.

Item No. 59-5.6: To note the minutes of the 48th and 49th meeting of SUGB.

Minutes of the 48th and 49th meeting of SUGB held on 09.04.2025and 03.07.2025 are placed for information to the Senate. **(Annexure -O, Page 118 to 129).**

Item is placed for information.

Item No. 59-5.7: To note the minutes of the 48th and 49th meetings of the Academic Affairs Committee.

The minutes of the 48th and 49th meetings of Academic Affairs Committee (AAC) meetings held on 24.04.2025 and 12.06.2025, is placed for information to the Senate **(Annexure-P, Page 130 to 133).**

Item is placed for information.

Item No. 59-5.8: To note the provision for the issuance of the corrected degree certificate after minor correction.

In the 50th Senate meeting under Item No. 50-6.4, a provision for making minor corrections on the degree certificate issued by the Institute was placed, the Senate vide its resolution No. Senate-50/2023/10 approved the proposal to create a provision for making minor changes on the degree certificate issued by the Institute and authorized the Chairman, Senate to approve the same.

In this connection, the matter was placed in the 47th AAC meeting under item No. 47-3.6 and AAC recommended the provision for the issuance of the corrected degree certificate, the same was vetted by the legal cell. After vetting the following provision was proposed for making minor correction on the degree certificate issued by the Institute, which was approved by the Chairman Senate.

1. **Application Submission:**
   The student must submit a application requesting the duplicate certificate, accompanied by the following documents:
   - Photo copies of all semester mark sheets
   - The Original Degree Certificate
   - Proof of identity (e.g., Aadhaar card or any government-issued ID)
2. **Initiation of Approval Process:**
   Upon receiving the application, the academic office will process it and initiate the approval request to the Chairman, Senate for approval.
3. **Cancellation of Incorrect or Old Certificate:**
   Once the Chairman of the Senate approves the request, the previously issued Degree Certificate will be cancelled.
4. **Preparation of Corrected Certificate:**
   The academic office will prepare the corrected Degree Certificate and submit it to the Chairman, Senate for signature.

Item is placed for information.

Item No. 59-5.9: To report the duplicate degree issued to students in UG programme.

After following due procedure, the following duplicate degrees were issued:

ID No.	Name	Branch	Remarks
2013UCH1677	Harshwardhan Kumar	Chemical Engineering	Lost his original degree
2019UME1182	Manya Gupta	Mechanical Engineering	Lost his original degree

Item is placed for information.

Item No. 59-5.10: To report the corrected degree issued to students in the PG programmes.

After following due procedure, the following degree was issued:

ID No.	Name	Corrected name in Hindi	Branch	Remarks
2021PES5307	Baubi	बौबी	Power Systems (Electrical Engineering)	Name correction in Hindi

Item is placed for information.

Item No. 59-6.0: Any other items with permission of chair.

Annexures

मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर

Malaviya National Institute of Technology Jaipur

(An Institute of National Importance under Ministry of Education, Govt. of India)

MINUTES OF 58TH SENATE MEETING HELD ON 11TH MARCH2025

The 58th meeting of the Senate was held on 11th March 2025 from 4:00 PM onwards in Niti Sabhagar, Prabha Bhawan of the Institute. The attendance list is at Annexure-A.

Chairman Senate, in his opening remarks, welcomed all the members attending the meeting. The agenda items were taken one by one, the resolutions of which are as follows:

Item No. 58-1.0	:	**To confirm the minutes of the 56th and 57th (Emergent) meeting of the Senate.** The Senate confirmed the minutes of the 56th and 57th (Emergent) meetings of the Senate.
Item No. 58-2.0	:	**To note the "Action Taken" on the decisions taken in the 56th and 57th (Emergent) meeting of the Senate.** The Senate noted the action taken report on the decision/resolutions taken in its 56th and 57th (Emergent) meeting.
Item No. 58-3.0		**Item for ratification**
Item No. 58-3.1		**To ratify the nomination of external members of the Senate.** Item was ratified
Item No. 58-4.0	:	**Item for consideration**
Item No. 58-4.1	:	**To consider the academic calendar for the academic year 2025-26.** **Resolution No. Senate-58/2025/01:** The Senate reviewed and approved the proposed academic calendar for the academic session 2025-26. Additionally, the Senate recommended that, moving forward, the draft academic calendar be circulated among all faculty members, in addition to the Deans and HoDs.
Item No. 58-4.2	:	**To consider the revision in the guidelines for dealing with unfair means used by students in examinations.** **Resolution No. Senate-58/2025/02:** The Senate approved the unfair means guidelines and the standing Standard Operating Procedure (SOP). Additionally, the Senate authorized Chairman Senate to make decisions on mercy applications for the concurrent cases.

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Item No. 58-4.3 : **To consider the following clarification in the PG RR 2024.**

Resolution No. Senate-58/2025/03: The Senate, after detailed deliberation, approved the following clarifications in the PG RR:

Clause No.	Existing provision	Senate decision
2.7.1 (b)	The DSC shall consist of: • Convener, DSC • At least three faculty members from the Department/ Centre concerned, preferably one each from among Professors, Associate Professors and Assistant Professors of the Department/ Centre • One faculty from outside the Department nominated by the Chairperson, Senate	The DSC shall consist of: • Convener, DSC • At least three faculty members from the Department/ Centre concerned, preferably one each from among Professors, Associate Professors, and Assistant Professors of the Department/ Centre. • ***In addition to the above members, the DPGC Convener and Head of Department shall also be the members of the DSC.*** • One faculty from outside the Department nominated by the Chairperson, Senate
6.4.1(b) (vi)	A sponsored candidate, full-time or part-time, must have a total experience of more than two years and must have been in service of the sponsoring organization for at least one year **at the time of admission.**	A sponsored candidate, full-time or part-time, must have a total experience of more than two years and must have been in service of the sponsoring organization for at least one year ***by the last date of application form***.
14.3 (b)	A PhD student can appear in the comprehensive examination only after i. completion of the coursework and securing the minimum **specified CGPA requirement**; and ii. completion of at least two semesters, excluding the period of any authorized semester leave.	A PhD student can appear in the comprehensive examination only after i. completion of the coursework and securing the minimum ***CGPA of 7.00 or more***; and ii. completion of at least two semesters, excluding the period of any authorized semester leave.
14.2	PhD Course-Work (a) All PhD students shall have to register for a defined number of courses, comprising the course-work, at the start of their PhD program. (b) The PhD student shall register for the coursework as per the recommendations of the respective supervisors. (c) The PhD course work shall normally be comprised of:	PhD Course-Work (a) All PhD students shall have to register for a defined number of courses, comprising the course-work, at the start of their PhD program. (b) The PhD student shall register for the coursework as per the recommendations of the respective supervisors. (c) The PhD coursework shall normally be comprised of: i. One Core course of Research Methodology is mandatory for all candidates enrolled in the PhD program,

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				i. One Core course of Research Methodology is mandatory for all candidates enrolled in the PhD program, notwithstanding the Department/ Centre of enrolment. ii. One Elective course in Research Methodology offered by various Departments/Centres iii. Two or more PG courses of 3 credits or more offered by various Departments/ Centres as per the requirement of the PhD program. iv. PhD students admitted with B.Tech. Degrees shall register for courses equivalent to 18 credits in addition to the compulsory research methodology courses.	notwithstanding the Department/ Centre of enrolment. ii. One Elective course in Research Methodology offered by various Departments/Centres iii. Two or more PG courses of ***total credit 06 or more*** offered by various Departments/ Centres as per the requirement of the PhD program. ***PhD students admitted with Master Degrees in Engineering Discipline, Architecture & Planning and Management Studies shall register for courses equivalent to 06 credits in addition to the compulsory research methodology courses.*** ***PhD students admitted with Master Degrees in Physics, Mathematics, Chemistry and Humanities and Social Sciences shall register for courses equivalent to 08 credits in addition to the compulsory research methodology courses.*** iv. PhD students admitted with B.Tech. Degrees shall register for courses equivalent to 18 credits in addition to the compulsory research methodology courses.
Item No. 58-4.4	:	**To consider the Inclusion of the course "Optimization Techniques" in the list of program electives of the Department of Mathematics.** **Resolution No. Senate-58/2025/04:** After detailed deliberation, the Senate returned the proposal to the department for resubmission in the proper format and authorized the Chairman to approve it.			
Item No. 58-4.5	:	**To consider the proposal for awarding attendance to the student while representing the Institute in various sports events.** **Resolution No. Senate-58/2025/05:** The Senate did not approve the proposal and recommended that the sports and other events be scheduled during vacations. Additionally, the Senate suggested that the Dean of Student Welfare may convene a meeting with representatives from other NITs to organize these events during the summer and winter breaks.			
Item No. 58-4.6	:	**To consider the mercy request submitted by Mr. Lokesh Mahavar (2024RCY9021).** **Resolution No. Senate-58/2025/06:** The Senate did not approve the mercy request submitted by Mr. Lokesh Mahavar (2024RCY9021).			

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Item No. 58-4.7	:	**To consider the revised admission criteria for Ph.D. students under Institute Assistantship category.** **Resolution No. Senate-58/2025/07:** After detailed deliberation, the Senate decided that the candidates who have qualified for national-level eligibility tests/examinations, such as GATE, CSIR-NET, UGC-NET, etc., will be shortlisted for Interview. If deemed suitable, will be recommended for admission to PhD program with Institute Assistantship. However, candidates who have not qualified for any national-level eligibility tests/examinations, such as GATE, CSIR-NET, UGC-NET, etc., must appear for the institute-level written examination. These candidates will be eligible for the interview only after successfully qualifying the institute-level written examination. If deemed suitable, will be recommended for admission to PhD program with Financial Assistantship. Further, the candidate selected based on the institute-level written examination and Interview may be allocated to Assistant Professors as supervisors. Additionally, it is mandatory to have a co-supervisor at the level of either an Associate Professor or a Professor. The number of financial assistantships will be subject to availability and approval by the competent authority. Further in PG Rules and Regulations 2024 Clause 2.13.2 (c) Number of PhD slots iv. *"Each eligible faculty member can have a maximum of three students registered for PhD Institute Assistantships, irrespective of the Departments/ Centres of the Institute."* shall now be read as: *"Each eligible faculty member can have a maximum of three students registered for PhD Institute Assistantships/Financial Assistantships.* ***Additionally, a faculty member can supervise only one student under the Financial Assistantship category at any given time, either as a supervisor or co-supervisor."*** The Senate also approved the proposal for direct Ph.D. admission for B.Tech graduates under Clause 6.6.1(b), modifying the existing criterion: The original clause *"Candidates with 80% marks or above, or an equivalent CGPA, in a Bachelor's degree in Engineering/Architecture/Planning, and a valid GATE score may be recommended by the DPGC to the SPGB for admission to the Ph.D. program."* shall now be read as: *"Candidates with a Bachelor's degree in Engineering, Architecture, or Planning, securing 75% marks or above (or an equivalent CGPA), and either a valid GATE score or qualification in the institute-level entrance examination, may be recommended by the DSC to the SPGB for admission to the Ph.D. program after an interview for Institute Assistantship or Financial Assistantship."*

Dharmendar

Item No. 58-4.8	:	**To consider the case of Mr. Satwik Shyam Gupta for the award of B.Sc. degree.** **Resolution No. Senate-58/2025/08:** The Senate, after detailed deliberation, resolved that the exit options, eligibility criteria, and the awarding of the B.Sc. degree and diploma, as approved in the 44th Senate meeting under Item No. 44-3.1, be thoroughly reviewed by the Senate before submission for approval to the Board of Governors (BoG). The curriculum structure under NEP 2020 was implemented from the academic session 2022-2023. However, in the 57th Senate (Emergent) meeting, it was decided that students already enrolled would be considered on a case-by case basis, based on the recommendation of the concerned department. Accordingly, the case of Mr. Satwik Shyam Gupta, admitted in the 2020-2021 session for the award of a B.Sc. degree, was discussed. After deliberation, the Senate resolved that his case could not be recommended for the award of the B.Sc. degree.
Item No. 58-4.9	:	**To consider the proposal of a new M.Tech. programme in "Semiconductor Materials and Devices", submitted by the Material Research Centre.** **Resolution No. Senate-58/2025/09:** The Senate suggested to conduct a curriculum development workshop and come up with a new detailed proposal
Item No. 58-4.10	:	**To consider the minor correction in the name of the student after admission to the Institute.** **Resolution No. Senate-58/2025/10:** After detailed deliberation, the Senate approved the proposal for minor corrections in a student's name after admission to the Institute, following the legal procedures.
Item No. 58-4.11	:	**To consider the fee refund policy of the institute.** **Resolution No. Senate-58/2025/11:** The Senate deliberated and approved the proposed fee refund policy.
Item No. 58-5.0	:	**Items for reporting**
Item No. 58-5.1	:	**To note the final Rules and Regulations Manual for the conduct of UG programs at the Institute.** Noted
Item No. 58-5.2	:	**To note the minutes of the 65th, 66th, 67th and 68th (Special) meeting of SPGB.** Noted
Item No. 58-5.3	:	**To note the minutes of the 47th meeting of SUGB.** Noted
Item No. 58-5.4	:	**To note the minutes of the 47th meeting of the Academic Affairs Committee held on 13.02.2025.** Noted

Dharmendar

Item No. 58-5.5	:	**To note the list of Ph.D. students terminated from Institute rolls who scored a CGPA less than 07 in the academic year 2024-25.** Noted
Item No. 58-5.6	:	**To note the termination of Ph.D. student Mr. Sandeep Shukla (2020RME9599) from the Ph.D. program.** Noted
Item No. 58-5.7	:	**To note the termination of enrolment of Mr. Abhishek Singh (2024UCE1495), provisionally admitted under the PwD category in B.Tech. (Civil Engineering) programme at MNIT Jaipur.** Noted
Item No. 58-5.8	:	**To note the minor typographical errors in clause 14.7 of the PG Rules and Regulation 2024.** Noted
Item No. 58-6.0	:	**Any other items with permission of chair**
Item No. 58-6.1	:	**To consider the increase in the intake of B.Tech. AIDE program from the session 2025-26.** **Resolution No. Senate-58/2025/12:** The Senate recommended sending a proposal to the Ministry of Education for additional seat allocation.
Item No. 58-6.2	:	**To consider the scheme and syllabus two new M. Tech. programmes, namely Chemical Engineering and Sustainability (CE&S) and Petrochemicals and Polymer Technology (PC&PT).** **Resolution No. Senate-58/2025/13:** The Senate authorized the Chairman Senate to approve course proposals upon receiving recommendations from the SPGB.

The meeting ended with a vote of thanks to the Chair.

Dhanendra.

7/4/2025

Registrar & Secretary

Annexure-A

List of Senate members who attended the 58th Senate meeting offline/online:

S.No.	Name
1.	Prof.N. P. Padhy
2.	Dr. Ramachandran C. N.
3.	Prof.A.K.Vyas
4.	Prof. A. P.S. Rathore
5.	Prof. Ajay Singh Jethoo
6.	Prof. Amar Patnaik
7.	Prof. Arun Gaur
8.	Prof. D. Boolchandani
9.	Prof. G.D. Agarwal
10.	Prof. Ghanshyam Singh
11.	Prof. Girdhari Singh
12.	Prof. Harlal Singh Mali
13.	Prof. Jyotirmay Mathur
14.	Prof. K. R. Niazi
15.	Prof. Kailash Singh
16.	Prof. Kanupriya Sachdev
17.	Prof. Lava Bhargava
18.	Prof. M.M. Sharma
19.	Prof. M.K. Shrimali
20.	Prof. Mahesh Kumar Jat
21.	Prof. Manju Singh
22.	Prof. Madhu Agarwal
23.	Prof. Monica Sharma
24.	Prof. R.P.Yadav
25.	Prof. Ragini Gupta
26.	Prof. Raj Kumar Vyas
27.	Prof. Rajeev Shringi
28.	Prof. Rajendra Kumar Goyal
29.	Prof. Rajesh Kumar
30.	Prof. Rajive Tiwari
31.	Prof. Rakesh Jain
32.	Prof. Rohit Goyal
33.	Prof. Rohit Bhakar
34.	Prof. S.K. Tiwari
35.	Prof. S.P. Chaurasia
36.	Prof. Suja George
37.	Prof. Sumit Khandelwal
38.	Prof. Susanta Kumar Jana
39.	Prof. Tarush Chandra
40.	Prof. Upendra Pandel
41.	Prof. Vibhuti Singh Shekhawat
42.	Prof. Vijay Janyani
43.	Prof. Vineet Sahula
44.	Dr. Amartya Choudhary
45.	Dr. Dinesh Gopalani

46.	Dr. Nisha Verma
47.	Dr. Preeti Bhatt
48.	Dr. Sushant Upadhyaya
49.	Dr. Deepak Verma
50.	Dr. Santosh Chaudhary
51.	Dr. Sumanta Kuma Meher
52.	Dr. Kamlendra Awasti
53.	Dr. Yogesh Kumar Meena (ADPG)
54.	Dr. Ram Dayal (ADUG)

The list of members who could not attend the 58th Senate meeting:

S.No.	Name
1.	Prof. Tripta Thakur
2.	Prof. Umakant Dash
3.	Prof. A. B. Gupta
4.	Prof. Dilip Sharma
5.	Prof. Gunwant Sharma
6.	Prof. K.K. Sharma
7.	Prof. Manish Vashishtha
8.	Prof. G.S. Dangayach
9.	Prof. Jyoti Joshi
10.	Prof. M. L. Mittal
11.	Prof. Mahender Choudhary
12.	Prof. Nikhil Gupta
13.	Prof. Nupur Tandon
14.	Prof. R. C. Gupta
15.	Prof. S.D. Bharti
16.	Prof. Manoj Fozdar
17.	Prof. Nirutpam Rohtagi
18.	Prof. Sanjay Mathur
19.	Prof. Sudhir Kumar
20.	Prof. T. C. Gupta
21.	Prof. Urmila Brighu
22.	Prof. Vijay Laxmi
23.	Prof. Y.P. Mathur
24.	Dr. Namita Mittal
25.	Dr. Nishant Roy

Program M.Tech: Materials Science & Engineering	Department: Materials Research Centre
Course Code: 21MST501	Course Name: **Design of materials**
Credits: 3	L-T-P: 3-0-0
Pre-requisite Course: Nil	

Course Description: This course is structured to provide basic understanding of design of materials at very fundamental level. Starting from atomic bonding and structure, we build on identifying the structure to be crystalline or amorphous. Identification of basic structural unit and imperfection leading to various unique properties will be covered further. Structure-property correlation will be established for Metals, semiconductors, ceramics and composites, elaborating the structure leading to unique functional properties.	
Course Content	
Unit 1	Introduction to material science, classification of materials. Atomic structure and Interatomic bonding, Crystalline and amorphous structure identification, Various crystal systems, plane direction representation.
Unit 2	Imperfection in solids, point defects, line defects, planar defects and surface defects. Diffusion mechanisms. Mechanical response of a material-dislocation.
Unit 3	Phase diagram-illustration using Iron-Carbon system. Phase transformation-with reference with microstructure and property changes. Various processing routes for metal alloys.
Unit 4	Relation of structure with properties-Electrical, Thermal, Magnetic and Optical. Various consideration of material design and selection for economic, environmental and societal issues.
Unit 5	Material Systems- Ceramics, Polymer and composites- there structure, properties and processing. Design and Materials selection Examples: Cutting tools, Combustion Engine, Thermoelectric modules, Solar Cells, Electronic Devices.
References	1. Material Science and Engineering an Introduction by William D. Callister 2. M. F. Ashby, Materials Selection in Mechanical Design, Elsevier Publication, 2005 3. D.R. Askeland and P.P. Phule, The Science and Engineering of Materials, Thomson Brooks/Cole Publication, 4th edition, 2006
Course Outcome	1) Student will be familiar with all the basic terminology encountered in the discipline of Material Science. 2) Assimilate knowledge of basic structure of materials used in various practical applications. 3) Using this knowledge student will be able to design material for specific application requirement.

Energy Materials and their applications 21MST817			
Prerequisite: Basic understanding of physics and electrochemistry	L	T	P
Type: Program Elective	3	0	0
Credit: 03			
Course Description: The main objective of this course is to give students an overview of energy materials and their utility in various sectors.			
Course Content			
Unit 1 (10L)	**Photovoltaic Solar Energy Materials**: Solar cell principles and its characterization. Absorption and minority carrier life time, Single crystalline and polycrystalline silicon solar cells, Amorphous silicon solar cells, Cadmium Telluride thin film solar cells, Transparent conductive oxide materials, Chalcopyrite based solar cells, Organic and dye sensitized solar cells.		
Unit 2 (8L)	**Thermoelectric Materials**: Physics of thermoelectricity, Peltier, Seebeck and Thomson effects, Types of thermoelectric materials, Thermoelectric generators, Peltier cooler.		
Unit 3 (10L)	**Electrochemical Energy Materials**: Fundamentals of electrochemical energy conversions, Primary batteries - Zn-MnO_2 system, carbon-zinc and carbon-zinc chlorides performance characteristics and zinc-silver oxide. Secondary batteries – lead acid, nickel cadmium, nickel metal hydride, silver oxide zinc system, lithium ion battery, Batteries beyond Lithium Ion, Introduction to super capacitors, types of super capacitors, Introduction to fuel cells, Types of fuel cells and technology development.		
Unit 4 (8L)	**Hydrogen Energy**: Hydrogen; its merit as a fuel; Applications, Hydrogen production methods, Production of hydrogen from fossil fuels, Electrolysis, Thermal decomposition, Photochemical and photo-catalytic methods, Hydrogen storage methods, Metal hydrides, Metallic alloy hydrides, Carbon nano-tubes, Sea as source of Deuterium.		
References	(i) Markvart ,T., Castaner L., *Solar Cells-Materials. Manufacture and Operation*, 2nd ed., Elsevier Ltd. 2012 (ii) Nolas, G. S., Sharp, J., Goldsmid ,J., . Schwartz, M.M., *Thermoelectric: Basic Principles and New Materials Developments*, Springer series 2001 (iii) Bard, J., Allen. and Larry Faulkner,R.,*Electrochemical methods: Fundamentals*		

	and Applications , 2nd Edition John Wiley & Sons. Inc 2004 (iv). Linden, D., *Handbook of Batteries*, 2nd edition, McGraw-Hill, New York 1995
Course Outcome	CO1: Grasp the basics of Energy materials and their properties. CO2: Understanding the working principle of devices made of energy materials. CO3: Synthesis routes for energy materials for different targeted applications.

Introduction to Soft Materials 21MST805			
Prerequisite: Basic knowledge of Chemistry and Physics	L	T	P
Type: Open Elective	3	0	0
Credit: 03			

Course Description:
The course will provide a brief overview of various classes of soft materials and their characterization.

Course Content

Unit 1 (3L)	**Introduction to Soft materials:** Definition, Various classes of Soft materials, Concept of self-assembly.
Unit 2 (11L)	**Colloids:** Introduction to Colloids, Types of Colloids, Source, Synthesis and Characterization of colloids, Interaction between colloidal particles, Brownian force and its application in measurement of diffusivity and size, Van der Waal's force and its molecular origin, Effect of medium on Van der Waal's interactions, Stability of colloids, Electrostatic forces and electric double layer; DLVO theory, Hamaker constant, specific ion adsorption, Stern layer, Electrostatic, steric and electrosteric stabilization, zeta potential
Unit 3 (6L)	**Surfactants:** Introduction to Surfactants, Types and uses of surfactants, Micelles and Micellization, Critical Micellar concentration (CMC) and factors affecting CMC, Structure of micelles, Catalysis by Micelles, Emulsions and Microemulsions, Emulsion stability, Phase inversion temperature of emulsions, Applications of Microemulsions. Preparation, Characterization and Applications of Foams. Stability of foams, Mechanisms of Foaming and Antifoaming.
Unit 4 (6L)	**Polymers:** Classification of polymers, Molecular weight, Polymer solutions, Radius of gyration, Effect of concentration on polymer solutions, Polymer Gels, Mechanical properties of polymers.
Unit 5 (6L)	**Biological soft materials:** Concept of Biomechanics and Biomolecular assembly, Composition of cell, Cell membrane, Lipid phase behavior, Protein structure and assemblies, Protein filaments, Nucleic acids and their structure.
Unit 5 (7L)	**Characterization of Soft materials:** Optical, electron and atomic force microscopic techniques, Light scattering techniques, Spectroscopic techniques: FTIR, NMR, Rheology.

References	1. L. S. Hirst, *Fundamentals of Soft Matter Science*, 2nd Edition, CRC press. 2. I. W. Hamley, *Introduction to Soft Matter*, 2007, John Wiley and Sons. 3. P. C. Hiemenz and R. Rajagopalan, *Principles of Colloid and Surface Chemistry*, 1997, Marcel Dekker. 4. T. Cosgrove, *Colloid Science*, 2005, Wiley.
Course Outcomes	CO1: To appreciate the importance of various types of interactions present in colloids and their implications on the stability of colloids. CO2: To demonstrate the process of micellization and the science involved in surfactants, emulsions and foams. CO3: To understand the mechanical and rheological properties of soft materials like polymers. CO4: To understand the process of self-assembly in biological soft materials and its role in the structure of biological soft materials. CO5: To characterize soft materials using various microscopic, spectroscopic & scattering techniques.

Nanomaterials Technology 21MST822			
Prerequisite: Basic knowledge of Chemistry, Physics and Biology	L	T	P
Type: Open Elective	3	0	0
Credit: 03			

Course Description:
The course will introduce the students underlying physical/chemical principles of nanotechnology, synthetic strategies and technological impact and applications in various fields.

Course Content

Unit 1 (4L)	**Introduction to nanomaterials**: History of nanomaterials, Surface area to volume ratio, stabilizers, Synthesis of nanomaterials by top-down and bottom-up approaches, General properties of nanomaterials, Effect on properties and phase stability of nanomaterials compared to the bulk state.
Unit 2 (11L)	**Different classes of nanomaterials**: Materials at reduced dimensions, Two-dimensional nanostructures – surfaces and films, One dimensional nanostructures – nanotubes and wires, Zero dimensional nanostructures – fullerenes. Metallic nanoparticles: Surface plasmon resonance, Synthesis of metal nanoparticles by wet chemical methods, Ostwald ripening and sintering, Anisotropic nanoparticles. Metal nanoclusters, Bimetallic nanoparticles, Quantum Dots: Quantum confinement, Band gap tuning and properties of quantum dots, Surface defects and doping in quantum dots. Soft Nanomaterials-Gels, Gel-nanoparticle composite, Properties of gels.
Unit 3 (7L)	**Nanomaterials for catalysis, optical sensing and as artificial enzymes;** Catalysis: Types of catalysis, Metallic nanoparticles and nanoclusters as catalyst, metal oxide and carbon nanostructures for photocatalysis; Optical Sensing: Principles of optical sensing, Fluorescence and Quenching mechanisms, Metal nanoparticles and fluorescent nanostructures as optical sensors for heavy metal ions, important biomolecules and explosives with examples of paper and film based sensing devices; Artificial enzymes: Enzymes, Importance of nanozymes; Metallic, oxide, carbon and hybrid nanoscale materials as artificial enzymes.
Unit 4 (8L)	**Nanomaterials for energy and environmental protection**; Nanomaterials for solar cells, Green chemistry, Nanomaterials for clean water & air.
Unit 5	**Nanotechnology for medical diagnostics and therapy**: Disease diagnostics:

(9L)	Quantum dot conjugation strategies with DNA-aptamer, Protein and antibody and FRET based assays for disease diagnostics. Drug delivery: Lipid and polymeric nanoparticles as drug delivery vehicles; Polymeric, peptide and metal-organic gels for drug delivery, Nanotechnology for therapy: Metallic nanostructures and nanoscale metal-organic frameworks for phototherapy of cancer; Magnetic nanoparticles as MRI contrast agents.
References	1. M. S. R Rao, S. Singh, *Nanoscience & nanotechnology: Fundamentals of frontiers*, 1st Edition, Wiley India Pvt. Ltd., 2013. 2. G. Schmid, *Nanoparticles: From Theory to Application*, 2nd Edition John Wiley and sons, 2010. 3. G. Cao, Y. Wang, *Nanostructures and nanomaterials: Synthesis, properties, and applications*, 2nd Edition, World Scientific Press, 2011. 4. C. S. S. R Kumar, *Nanomaterials for Medical Diagnostics and Therapy*, 1st Edition, Wiley-VCH, 2007.
Course Outcomes	CO1: To apply various bottom up and top-down approaches for synthesizing nanomaterials. CO2: To utilize surface plasmon resonance band and fluorescence of nanomaterials for optical sensing. CO3: To apply the knowledge of various photophysical processes and interpret the mechanisms responsible for fluorescence quenching. CO4: To apply nanostructured materials in environmental, energy and medical fields. CO5: To evaluate the structure-property relationship and size effects of nanomaterials

List of Elective Courses for 4th Year Students in B.Tech, Civil Engineering Program

- The following courses are identified as basket of courses to be offered as program electives for Civil Engg. students in 7th and 8th semesters:

#	Code	Course Name	Credits	L T P
1		Construction Information Systems	3	2 1 0
2		Prestressed Concrete	3	3 0 0
3		Air & Noise Pollution	3	3 0 0
4		Design of Masonry Structures	3	2 1 0
5		Sustainable Building Project Delivery	3	3 0 0
6		Urban Water Conveyance System Design	3	3 0 0
7		Introduction to Spatial Data Collection and Analysis	3	3 0 0
8		Design of Steel Structural Systems	3	2 1 0
9		Industrial Waste Treatment	3	3 0 0
10		Railway and Airport Engineering	3	3 0 0

- The following courses have been listed as basket of courses for students opting for Honours Program in Civil Engineering.
- Due to their popularity and their relevance in the industry, these courses are also open as Program electives for other Civil Engg. students in 7th and 8th semesters students (who are not part of Honours Program in Civil Engineering):

#	Code	Course Name	Credits	L T P
1		Design of Hydraulic Structures	3	3 0 0
2		Solid Waste Management	3	3 0 0
3		Dynamics of Structures	3	2 1 0
4		Finite Element Method	3	2 1 0
5		Landfill Engineering	3	3 0 0
6		Soil Dynamics	3	3 0 0
7		Earth Dams	3	3 0 0
8		Advanced Structural Analysis	3	2 1 0
9		Advanced Foundation Design	3	3 0 0
10		Ground Improvement Techniques	3	3 0 0
11		Concrete Technology	3	3 0 0
12		Earth Retaining Structures	3	3 0 0

- To ensure that the Honours students have sufficient and unique courses to opt as program electives in 7th and 8th semester, enough elective courses will be floated. Additionally, PG courses may also be offered as program electives to these students.

08/4/2025

Prof. Gunwant Sharma

DUGC Convener

Syllabi of Program Elective Courses offered by Civil Engineering:

UG/PG: UG	**Department:** Civil Engineering
Course Code:	**Course Name:** Construction Information Systems
Credit: 3	**L-T-P: 2-1-0**
Course Type: Program Elective	
Pre-requisite Course:	

Syllabus

3D modelling in construction, Building Information modelling concepts, software(s) used for BIM, REVIT working platform, 3D BIM Modelling execution using software, Integration of 3D models with other project management software e.g., NavisWorks, Integration of model and information within project teams, Industry 4.0 in construction, Automation in Construction, Use of Drones and sensors in Construction, Concept of intelligent and smart machinery, Use of IT for Safety in construction, Automation in construction, 3D printing concept, materials and equipment, tools and techniques for development of model for 3d Printing and its execution, delivery and management of 3D construction projects

Course Outcomes

1. Gain knowledge about various aspects of Construction Information systems.
2. Understand Management information systems in construction industry.
3. Understand web applications and e- business in construction.
4. Gain knowledge about introduction to green building software.

Text Books

1. Understanding IT in construction by Ming sun
2. BIM Handbook by Chuck Eastman
3. REVIT Tool Manuals by Autodesk
4. Construction and Building Automation from Concepts to Implementation, Benny Raphael

UG/PG: UG	**Department:** Civil Engineering
Course Code:	**Course Name:** Prestressed Concrete
Credit: 3	**L-T-P: 3-0-0**
Course Type: Program Elective	
Pre-requisite Course:	

Syllabus

Basic philosophy of prestressing; various techniques of prestressing; different systems of prestressing; Prestressing of concrete structures; losses in prestress; deflection of prestressed concrete members; analysis and design of prestress beams; camber; deflection; cable layouts; stretching in stages, ultimate strength in flexure and shear. Design of end blocks; Statically indeterminate structures; concordant cables; linear transformation, Analysis and design of continuous beams. Tension members; circular prestressing-prestressed tanks and prestressed pipes. Compression members; piles. Partial prestressing; composite construction, analysis of composite beams, prestress slabs; Introduction to pre-cast prestressed elements like poles, railway sleepers, beams, slabs and wall panels etc. planning and economical aspects of prestressed structures, construction of prestressed concrete structures-techniques, materials and management

Text Books

1. Prestressed Concrete Structures by T.Y. Lin
2. Prestressed Concrete Structures by Krishnaraju
3. Prestressed Concrete Structures by G.S. Pandit & S.P. Gupta.

UG/PG: UG	**Department:** Civil Engineering
Course Code:	**Course Name:** Air and Noise Pollution
Credit: 3	**L-T-P: 3-0-0**
Course Type: Program Elective	
Pre-requisite Course: 22CET101 Environmental Science	

Syllabus

Sources of air pollution; Classification of aerosols, Gases vapors, natural pollutants; Properties of air pollutants; Standards of air quality. Emission inventories & Emission factor; Meteorological factors influencing dispersion of air pollutants; Gaussian plume model for dispersion of air pollutants and its applications; Effects on man, material, vegetation, art treasure; Air pollution disasters; Economic Effects of air pollution; Global Effects of Air pollution; Air pollution Due to Automobiles and emission control; General concept of transport planning for prevention of air pollution; Control technology for particulate and gaseous pollutants. Basics of noise Pollution; Measurement of noise; permissible noise levels in different zones; effects of noise, Control of Noise Pollution.

Course Outcomes

1. Ability to understand the various sources of air pollution and their classification.
2. Knowledge about Emission inventories & Emission factor.
3. Ability to understand about Economic Effects of air pollution.
4. Ability to understand Control technology for particulate and gaseous pollutants.

Text Books

1. Air Pollution: Its Origin & Control: Wark, Warner & Davis
2. Air Pollution: Perkins.
3. Noise Pollution and Control: S P. Singhal
4. Air pollution and control, KVSG Muralikrishna, Kaushal and Co., ND.

UG/PG: UG	**Department:** Civil Engineering
Course Code: -	**Course Name:** Design of Masonry Structures
Credit: 3	**L-T-P: 2-1-0**
Course Type: Program Elective	
Pre-requisite Course:	

Syllabus

Introduction and Historical Perspective; Behaviour of Masonry Structures: Common modes of failure, effect of unit shapes and mortar type, effect of roof and floor systems; Common deficiencies; Masonry Design Approaches; Overview of Load Conditions. Compression Behaviour of Masonry: Prism strength, Failure mechanism, types of construction and bonds; Eccentric loading; Slenderness – effective length and effective height, effect of openings. Masonry Under Lateral Loads: In-plane and out-of-plane loads, bending parallel and perpendicular to bed joints; Shear and flexure behaviour of piers; Interactions. Earthquake Resistant Measures: Analysis for earthquake forces, role of floor and roof diaphragm; Concept and design of bands, bandages, splints and ties; Reinforced masonry; IS 4326 (2013) Code provisions. Masonry Infills: Effect of masonry infills on seismic behaviour of framed buildings; Failure modes; modelling of Infills – equivalent strut; Safety of infills in in-plane action – shear, compression and buckling; Code provisions. Retrofitting of Masonry Building: Techniques of repair and retrofitting of masonry buildings; IS: 13935 (2009) code provisions for retrofitting.

Course Outcomes

1. Understand engineering characteristics of different type of masonry structures.
2. Understand behavior of masonry under different type of loads.
3. Be able to apply different techniques for modelling of masonry infills.
4. Be able to select from various retrofitting techniques for masonry buildings.

Text Books

1. P. Dayaraatnam and P. Sarah, "Brick and Reinforced Structures (2/e)", Medtech.
2. K. S. Jagadish, "Structural Masonry", Dreamtech Press.

References

1. A. W. Hendry, "Structural Masonry (2/e)", Palgrave Macmillan.
2. R. G. Drysdale, A. H. Hamid and L. R. Baker, "Masonry Structure: Behaviour and Design", Prentice Hall, Englewood Cliffs.
3. T. Paulay and M. J. N. Priestley, "Seismic Design of Reinforced Concrete and masonry Buildings", John Wiley & Sons.
4. J. E. Amrhein, "Reinforced Masonry Engineering Handbook," Masonry Institute of America, CRC Press.
5. D. Anderson and S. Brzev, "Seismic Design Guide for Masonry Buildings," Canadian Concrete Masonry Producers Association.
6. FEMA 356, "Prestandard and Commentry For The Seismic Rehabilitation of Buildings", Federal Emergency Management Agency, Washington, D.C.

UG/PG: UG	**Department:** Civil Engineering
Course Code: -	**Course Name:** Sustainable Building Project Delivery
Credit: 3	**L-T-P:** 3-0-0
Course Type: Program Elective	
Pre-requisite Course:	

Syllabus

Introduction to sustainable development ; Energy and environmental issues in built environment; Concept of eco-friendly materials and designs, Reuse-reduce and recycling of material, waste utilization in construction materials; Professionals associated in a sustainable building project, roles and responsibilities of engineers and managers, integrated project management, certified professionals for sustainable projects, project delivery and documentation for certification of sustainable buildings; Introduction to green movement and sustainable buildings, sustainable building economics, concepts of life cycle costing ; Introduction to sustainable building design and rating systems, Requirements and submittals, national and international certification processes (LEED, LEED India, GRIHA-TERI, etc.), exposure to related standards and organizations, associated tools and terminology, continual improvement, case studies.

Course Outcomes

1. Ability to understand the Concept of sustainable development.
2. Ability to understand the waste utilization in construction materials.
3. Ability to understand the Introduction to sustainable building design.

Text Books

1. Sustainable construction, design and delivery by Charles Kibert
2. LEED Green building rating System
3. GRIHA Building rating system

UG/PG: UG	Department: Civil Engineering
Course Code:	Course Name: Urban Water Conveyance System Design
Credit: 3	L-T-P: 3-0-0
Course Type: Program Elective	
Pre-requisite Course: Environmental Engineering – II	

Syllabus

Urban hydrological cycle and components; Impact of urbanization on hydrological cycle; Anomalies & characterization of rainfall; Time and scale effects; Urban hydrological data requirements and analysis; Rainfall-runoff modelling and simulation using TR-20, TR-55 and SWMM/EPANET/HEC models; Planning & design aspects of storm water/drainage infrastructure; Water supply conveyance system analysis and design. Operation and maintenance of urban water conveyance system.

Course Outcomes

1. Understand and analyse the urban hydrological cycle and its components.
2. Simulate the urban watershed behaviour using different modelling tools.
3. Plan and design the storm drainage system.
4. Analyse and design the water supply distribution systems and networks.

Text Books

1. Hall, M.J., Urban Hydrology, Elsevier, 1984.
2. Optimal Design of Water Distribution Networks, P. R. Bhave, Narosa Publishing House, 2003.
3. Butler, D. & Davies, J.W. Urban Drainage, Spon Press, 2nd Edn., 2004.

References

1. Leonard, O.J. & Sherrif, J. Scope for the Control of Urban Runoff. Report 124, CIRIA, 1992.
2. DOE/NWC Design and Analysis of Urban Storm Drainage. The Wallingford Procedure. Dept. of the Environment, Standing technical Committee Report 28, 1981.
3. Shaw, E.M. Hydrology in Practice. 3rd Edn., Chapman & Hall, 1994

UG/PG: UG	**Department:** Civil Engineering
Course Code:	**Course Name:** Intro. to Spatial Data Collection & Analysis
Credit: 3	**L-T-P: 3-0-0**
Course Type: Program Elective	
Pre-requisite Course:	

Syllabus

Remote Sensing: Basic concepts, Remote Sensing Platforms & Sensors; Remote sensing data products; Geometric & Radiometric corrections; Visual Interpretation and digital image processing; Image Classification, Accuracy Assessment; Image Processing Software. Overview of GNSS techniques, Introduction to the GNSS functions, Components and operation of GNSS; Surveying and data collection using GNSS; Overview of 3D Terrestrial Scanners and Ground Penetrating Radar. Geographic al Information System; Basic concepts and components of GIS; Digital representation of geographic data, Database creation, Raster and Vector based GIS data and analysis, Database management; Operations and analysis in GIS; Introduction of GIS software. Application case studies of spatial data collection and analysis techniques.

Course Outcomes

1. Ability to understand geo-spatial data collection techniques i.e., remote sensing, satellite based positioning and laser based spatial data collection
2. Learning selection of appropriate geo-spatial data requirement and collection technique for different applications
3. Able to extract required information from the geo-spatial data through different image processing techniques, processes and methods
4. Analyzing geo-spatial data and finding solution of different geographic problems

Text Books

1. Remote Sensing & Digital Image Processing: by Lillesand & Keifer, John Wiley & Sons, Inc.
2. Introductory digital image processing: a remote sensing perspective, J. R., Jensen, Prentice Hall
3. Global Navigation Satellite Systems (GNSS), G. S. Rao, Tata McGraw Hill Publications.
4. Principles of geographical information system, P. Burrough, Oxford University Press.

References

1. Chou, Yue-Hong. 1997, Exploring spatial analysis in geographical information systems, One Word Press, USA
2. Christopher Jones. 2002, Geographical information systems and computer cartography Longman, London.

UG/PG: UG	**Department:** Civil Engineering
Course Code:	**Course Name:** Design of Steel Structural Systems
Credit: 3	**L-T-P: 2-1-0**
Course Type: Program Elective	
Pre-requisite Course: Design of Steel Structures	

Syllabus

Structural Steels, Brittle fracture and fatigue; Stability of Beam Columns, frames and plates, advanced Plastic design of Steel Structures, design of Gantry Girders, Plate Girder bridge, Truss Girder Bridge, Steel Tanks ,using latest IS codes.

Text Books

1. Plastic Analysis & Design Of Steel Structures : Wong
2. Design of Steel Structures: N Subramanium
3. Limit State Design of Steel Structures: S.K.Duggal
4. Design of Steel Structures: P Dayaratnam.

UG/PG: UG	**Department:** Civil Engineering
Course Code:	**Course Name:** Industrial Waste Treatment
Credit: 3	**L-T-P: 3-0-0**
Course Type: Program Elective	
Pre-requisite Course: Environmental Engineering – II	

Syllabus

Sources and characteristics, Effects of Discharges of Industrial Waste on receiving bodies of water, land and Sewer. Effluent and stream standards. Specific Industrial Treatment Processes: Neutralization, Equalization and proportioning, Volume and strength Reduction. Raw Materials, water Requirement, Flow Sheet and treatment of Industrial Wastewater Generated form: Textile Tannery, Pulp and Paper, Dairy, Distillery, Dying and Printing, and electro-plating Industry. Provisions of various Indian standards for above Industries. Potentials for Wastewater recycle and reuse in industries, Concept of Common effluent treatment plants.

Course Outcomes

1. Ability to understand the sources and characteristics, Effects of Discharges of Industrial Waste on receiving bodies of water.
2. Ability to understand the Specific Industrial treatment Processes.
3. Ability to understand the methods of treatment of Industrial Wastewater.
4. Ability to understand the methods Potentials for Wastewater recycle and reuse in industries.

Text Books

1. Industrial Wastewater by Nelson L Nemerow
2. Industrial water pollution control, William Wesley Eckenfelder
3. Industrial Wastewater Treatment by Rao & Dutta

UG/PG: UG	**Department:** Civil Engineering
Course Code:	**Course Name:** Railway and Airport Engineering
Credit: 3	**L-T-P: 3-0-0**
Course Type: Program Elective	
Pre-requisite Course:	

Syllabus

Railway Engineering: Introduction; Gauges; right of way, gradient, Resistance to traction and stresses in track; Track component parts their functions and requirements viz. Rails; Sleepers; Ballasts. Geometric design of railway track, Super elevation, points and crossing; requirement of rail joints. Track junctions, Design of turn out and cross-over, signaling and interlocking; high speed and ballastless tracks. Airport planning and Design, Airport Engineering: Air Transport scenario in India and stages of development, technical terms relating to airways and airport, aircraft characteristics; site selection; Airport classification; layout, Obstructions and zoning laws; Runway orientation and geometric design of runway; Taxiways; Aircraft parking, runway marking and lighting, system; drainage, apron and visual aids.

Course Outcomes

1. Acquire the knowledge for basic aspects of railway track and its components i.e. gauge, ballast, sleepers and rails.
2. Acquire the basics to design the railway cant and know the functioning of points & crossings etc.
3. Acquire the broad knowledge of different types of railway signals, interlocking of signals.
4. Acquire the knowledge for design and analysis of airport runway length, taxiways, aprons and design of runway pavement crust.
5. Acquire the skills to understand the aircraft characteristics, wind rose diagrams and other factors necessary for selection of airport site.

Text Books

1. Railway Engineering by Saxena and Arora
2. Railway Engineering by Chandra and Agarwal
3. Airport Engineering by Arora and Khanna

UG/PG: UG	**Department:** Civil Engineering
Course Code:	**Course Name:** Design of Hydraulic Structures
Credit: 3	**L-T-P:** 2-1-0
Course Type: Honours Core + Program Elective	
Pre-requisite Course: Water Resources Engineering, Hydrology	

Syllabus

Introduction; type of hydraulic structures and their function; consideration for their selection. Dams; Design principles of gravity and earth dams; spillway; types of spillway: Ogee, chute, shaft, side channel and siphon spillway; spillway aerators; spillways; Design of ogee spillway. Diversion headworks; Components of diversion head work and their design. Channel transitions; Design of channel transitions for sub critical and super critical flows; cross and distributory head regulators; energy dissipation downstream of falls; Cross drainage structures: Super passage, aqueducts, design of cross drainage structures, Design of outlets.

Text Books

1. Water Resources Engineering by Linsley & Franzini
2. Irrigation Engineering by G.L. Asawa
3. Water Resources & Water Power Engg. By P.N. Modi.

UG/PG: UG	Department: Civil Engineering
Course Code:	Course Name: Solid Waste Management
Credit: 3	L-T-P: 3-0-0
Course Type: Honours Core + Program Elective	
Pre-requisite Course:	

Syllabus

Problems associated with solid waste disposal; generation of solid wastes; Classification of solid; characteristics of solid waste; analysis of solid waste; Onsite handling, storage and processing of solid waste; Solid waste collection systems; options for transfer and transport systems; processing and disposal methods; Recovery of resources, conversion products and energy generation from solid waste, Biomedical waste definition; Biomedical Handling Rules; Waste Category; waste minimization; Handling and Disposal; Biomedical waste treatment; Electronic waste and its management.

Text Books

1. Integrated Solid Waste Management: Tchobanoglous, Theisen and Vigil
2. Hazardous Waste Management: Wentz
3. Environmental Engineering, Howard Peavy, D. Rowe.

UG/PG: UG	**Department:** Civil Engineering
Course Code:	**Course Name:** Dynamics of Structures
Credit: 3	**L-T-P: 3-0-0**
Course Type: Honours Core + Program Elective	
Pre-requisite Course: Structural Analysis	

Syllabus

Fundamental theory of vibration, Degree of freedom (DOF); Single degree of freedom (SDOF) system- Free and Forced vibrations of Undamped and Damped systems subjected to Harmonic loading, periodic loading, impulsive loading and Machine Vibration. Vibration Isolation; Concepts of elastic response spectra, Introduction to dynamics of Multi-degree of freedom (MDOF) systems; Two degree of freedom (TDOF) system- Free and Forced vibrations of Undamped and Damped systems subjected to Harmonic loading; MDOF systems- Natural frequencies and mode shapes, Orthogonal relationship; Dynamic response by mode superposition method; Approximate Methods for Vibration Analysis - Rayleigh quotient, Rayleigh-Ritz method, Holzer Method. Introduction to dynamics of continuous systems.

Text Books

1. Jain, A.K., "Dynamics of Structures With MATLAB® Applications", Pearson
2. Chopra, A.K., "Dynamics of Structures, (5/e)", Pearson
3. Humar, J.L., "Dynamics of Structures, (3/e)", CRC Press
4. Paz, M. and Kim, Y.H., "Structural Dynamics, (6/e)", Springer
5. Shabana, A.A., "Theory of Vibration: An Introduction, (3/e)", Springer
6. Clough, R.W. and Penzien, J., "Dynamics of Structures, (3/e)", Computers and Structures, Inc.

UG/PG: UG	Department: Civil Engineering
Course Code:	Course Name: Finite Element Method
Credit: 3	L-T-P: 2-1-0
Course Type: Honours Core + Program Elective	
Pre-requisite Course:	

Syllabus

Introduction, Variational principle, Principle of virtual work, Theory of minimum potential energy, Ritz Method, Interpolation & Representation of curves, elements of elasticity, finite element formulation, Various types of elements, solution procedures, convergence criterion, Isoparametric formulation, Lagrange & Serendipity elements, One dimensional and two dimensional elements

Text Books

1. Plastic Analysis & Design Of Steel Structures : Wong
2. Design of Steel Structures: N Subramanium
3. Limit State Design of Steel Structures: S.K.Duggal
4. Design of Steel Structures: P Dayaratnam.

UG/PG: UG	**Department:** Civil Engineering
Course Code:	**Course Name:** Landfill Engineering
Credit: 3	**L-T-P: 2-1-0**
Course Type: Honours Core + Program Elective	
Pre-requisite Course:	

Syllabus

Landfill method of solid waste disposal; Landfill classification, types, and methods; Principles and Planning of Landfill Soil geochemistry; contaminant transport; Leachate: Composition, formation, movement, and control of leachate in landfills Surface water management on landfills – drainage ditches; Environmental monitoring; Landfill operation, closure and post-closure Landfill gas: Composition and characteristics, Generation, movement and control of landfill gases Leachate control: liner systems, Geomembranes, CCL, GCL, Waste containment liner systems; leachate collection and removal; collection pipes, pumps, Landfill gas control: final cover systems; gas collection and management; extraction wells; manifold collection systems, condensate collection facilities, vacuum blower facilities, flaring facilities Geometric design: Base grades, Slopes, and berming, Costs, Construction aspects and Site Selection of Landfill Stability of Slopes and Settlement of Landfills Monitoring infrastructure: groundwater monitoring wells; perimeter drains, Bioreactor landfills; Hazardous waste landfills; Inactive waste disposal sites: site assessment and quantification of problem, Introduction to soil and groundwater remediation technologies; cut-off walls; Permeable reactive barriers

Text Books

1. Sharma & Reddy, "Geoenvironmental Engineering: Site Remediation, Waste Containment, and Emerging Waste Management Technologies", Wiley.
2. Daniels, "Geotechnical Practice for Waste Disposal", Chapman and Hall
3. Koerner, "Designing with Geosynthetics", Prentice Hall.
4. Reddi and Inyang, "Geoenvironmental Engineering: Principles and Applications", Marcel Dekker Inc Publication

UG/PG: UG	**Department:** Civil Engineering
Course Code:	**Course Name:** Soil Dynamics
Credit: 3	**L-T-P: 3-0-0**
Course Type: Honours Core + Program Elective	
Pre-requisite Course:	

Syllabus

Introduction to soil dynamics; Seismology and earthquakes; Theory of Vibrations- Dynamics of discrete systems; Strong ground motion - Measurement, characterization and estimation; Seismic hazard analysis - DSHA & PSHA; Dynamic soil properties - small and large strain; Wave propagation in elastic media; Ground response analysis; Soil-structure Interaction; Local site effects; Liquefaction of soil and its remediation.

Text Books

1. S. L. Kramer, "Geotechnical Earthquake Engineering", PHI, 2006
2. B. M. Das and G.V. Ramana, "Principles of Soil Dynamics", Cengage, 2nd Ed
3. B. B. Prasad, "Fundamentals of Soil Dynamics and Earthquake Engineering", PHI, 2011
4. I. Towhata, "Geotechnical Earthquake Engineering", Springer, 2008
5. T. Kokusho, "Innovative Earthquake Soil Dynamics", CRC Press. 2018

UG/PG: UG	**Department:** Civil Engineering
Course Code:	**Course Name:** Earth Dams
Credit: 3	**L-T-P: 2-1-0**
Course Type: Honours Core + Program Elective	
Pre-requisite Course:	

Syllabus

Permeability; seepage principles; flownet construction; filter and drain design; seepage control in earth dams and levees; foundation dewatering and drainage; slope stabilization with drainage; drainage for surface facilities; structural drainage; drainage for waste disposal facilities; performance monitoring and rehabilitation of seepage control measures; remedial seepage control; design of earth dams and berms; relief wells; pipelines crossing embankments; embankment instrumentation.

Text Books

1. Cedergren, "Seepage, Drainage, and Flownets", Wiley-Interscience, 3rd Edition
2. Reddy, "Seepage in Soils: Principles and Applications", Wiley
3. Harr, "Groundwater and Seepage", Dover Publications

UG/PG: UG	**Department:** Civil Engineering
Course Code:	**Course Name:** Advanced Foundation Design
Credit: 3	**L-T-P: 2-1-0**
Course Type: Honours Core + Program Elective	
Pre-requisite Course: Geotechnical Engineering – II	

Syllabus

Introduction, Foundation Choice, Definitions, Requirements, Types of foundations, Shallow foundations, Types of failures, bearing capacity, Settlement analysis, Contact stress beneath foundations, Beams on elastic foundations, Modulus of subgrade reaction, Special foundations, Foundations in expansive soils (CNS concept), Underreamed pile foundations, Remedial measures for cracked buildings. Foundation of transmission line towers, Underpinning of foundations, Importance and situations for underpinning, methodology, Typical examples of underpinning, Pile Foundation, Bridge substructures, Maximum depth of scour, Depth of foundation, Allowable bearing pressure, loads to be considered, Well Foundation, Lateral stability of well foundation, Design of pier cap, Design of pier, Sinking stresses in wells, Design of well components, Reinforced earth.

Text Books

1. A.P.S. Selvadurai, "Elastic Analysis of Soil-Foundation Interaction", Elsevier Scientific Publishing Company
2. B. M. Das, "Principles of Foundation Engineering", PWS Publishing Company
3. Joseph Bowles, "Foundation Analysis and Design", McGraw-Hill.
4. V.N.S. Murthy, "Advanced Foundation Engineering", CBS Publishers and Distributors, New Delhi.
5. Tomlinson, M.J. " Foundation Design and Construction", English Language Book Society, Longman.
6. Swami Saran, "Analysis and Design of Substructures", Oxford and IBH Publishing Co. Pvt. Ltd, New Delhi.

UG/PG: UG	Department: Civil Engineering
Course Code:	Course Name: Advanced Structural Analysis
Credit: 3	L-T-P: 2-1-0
Course Type: Honours Core + Program Elective	
Pre-requisite Course: Structural Analysis	

Syllabus

Degree of Kinematic indeterminacy and restrained structure; Displacement approach of analysis – Slope deflection method, Moment distribution method for analysis of continuous beams and rigid – jointed plane frame; Use of symmetry; Three hinged and two hinged arches; Matrix method using system approach – flexibility and stiffness method for analysis of pin-jointed plane frame, continuous beams and rigid – jointed plane frame; Introduction to Direct Stiffness method; Assembly of stiffness and load vectors; Boundary condition and solutions; Application to planer structures – trusses beams and frames & its computer formulations.

Text Books

1. Structural Analysis- A Matrix Approach by G.S. Pandit and S.P. Gupta
2. Structural Analysis by C.K. Wang
3. Basic Structural Analysis by Reddy

UG/PG: UG	Department: Civil Engineering
Course Code:	Course Name: Ground Improvement Techniques
Credit: 3	L-T-P: 2-1-0
Course Type: Honours Core + Program Elective	
Pre-requisite Course: Geotechnical Engineering - II	

Syllabus

Need for Ground Improvement, Different types of problematic soils, Emerging trends in ground Improvement, Shallow and deep compaction requirements, Principles and methods of soil compaction. Shallow compaction and methods, properties of compacted soil and compaction control, deep compaction and vibratory methods, dynamic compaction. Ground Improvement by drainage, Dewatering methods, Design of dewatering systems, Preloading, Vertical drains, vacuum consolidation, Electro-kinetic dewatering, design and construction methods. Cement stabilization and cement columns, Lime stabilization and lime columns, Stabilization using bitumen and emulsions, Stabilization using industrial wastes. Construction techniques and applications, Permeation grouting, compaction grouting, jet grouting, different varieties of grout materials, grouting under difficult conditions, Soil nailing, rock anchoring, micro-piles, design methods, construction techniques, Case studies of ground improvement projects. Soil Reinforcement and Geosynthetics, design principles and influencing factors, Use of geosynthetics for filtration, drainage, roads, and landfills.

Text Books

1. Ground Improvement Techniques by Dr. P. Purushottam, Laxmi Publications, New Delhi
2. Construction and Geotechnical methods in foundation engineering, by Koerner, MGH
3. Engineering with Geo-synthetics, by GV Rao & GVSS Raju, Tata McGraw Hill, New Delhi.
4. G. Venkatappa Rao, "Geosynthetics an Introduction", Sai Master Geoenvironmental Pvt Ltd.
5. Nainan P. Kurian, "An Introduction to Modern Techniques in Geotechnical and Foundation Engineering", Narosa Publishing House, New Delhi.
6. G.L. Sivakumar Babu, "An Introduction to Soil Reinforcement and Geosynthetics", Universities Press (India) Pvt Ltd, Hyderabad, A.P, India.

UG/PG: UG	**Department:** Civil Engineering
Course Code:	**Course Name:** Concrete Technology
Credit: 3	**L-T-P: 2-1-0**
Course Type: Honours Core + Program Elective	
Pre-requisite Course: Building Technology	

Syllabus

Review of constituent materials and mix design, admixtures, Properties of concrete in fresh and hardened state, Special concretes, Durability of concrete subjected to extreme environment, Deterioration mechanisms, assessment and control of corrosion in concrete structures, In-situ assessment of concrete structures, Various NDT techniques and their applications, Repair of concrete structures.

Text Books

1. Concrete technology by A. M. Neville, Pearson education India.
2. Concrete Technology by Krishnaraju
3. Concrete Technology by Gambhir

UG/PG: UG	**Department:** Civil Engineering
Course Code:	**Course Name:** Earth Retaining Structures
Credit: 3	**L-T-P: 2-1-0**
Course Type: Honours Core + Program Elective .	
Pre-requisite Course:	

Syllabus

General design considerations; forces on walls; structure stability; foundation analyses; design and construction details and causes of unsatisfactory performance; flood walls; concrete gravity walls; cantilever reinforced concrete walls; alternate retaining walls; coffer dams: planning, layout, elements, geotechnical considerations, analysis and design, instrumentation and example problems; design of sheet pile walls: general considerations, geotechnical investigations, system loads and stability, structural design and analysis, construction and special design considerations; Soil and rock anchors; Braced excavations.

Text Books

1. US Army Corps of Engineers, "Retaining and Flood Walls", USACE
2. Brooks, "Basics of Retaining Wall Design: A Design Guide for Earth Retaining Structures", HBA Publications, 11th Edition
3. Clayton, et al., "Earth Pressure and Earth Retaining Structures", CRC Press, 3rd Ed
4. Markandaya, "The Coffer Dams", Hamilton
5. Anderson, "Underwater Construction using Coffer Dams", Best Pub Co
6. Lindahl, Warrington, "Sheet Pile Design by Pile Buck", Pile Buck

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

CENTRE FOR ENERGY AND ENVIRONMENT

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
ENT 8##	Thermal Management in Electric Vehicles	3	3	0	0	0

PREREQUISITE

None

COURSE OBJECTIVES

1. To familiarize with the fundamentals and to understand the principles and concepts of thermal management design in electric vehicles at the component and system levels.
2. To familiarize with standards, safety requirements and evaluate thermal management designs with simulation tools used in industry.

COURSE OUTCOMES

CO1	Understand the basic concepts in EV domain and gain knowledge on general battery electric vehicle architecture
CO2	Understand EV thermal management at component and system levels
CO3	Understand safety aspects and industry testing standards in EV thermal management
CO4	Analyze performance of thermal management system using advanced simulations

COURSE ASSESSMENT

The Course Assessment will be made up of the following three components.

S. No.	Component	Weightage
a)	Mid-term Examination	30%
b)	Assignment	20%
c)	End Semester Examination	50%

COURSE CONTENTS

Module I - Electric Vehicles, EV System components and thermal characteristics (10)

Overview of electric vehicle architectures (BEVs, Hybrids, FCEVs), Role of thermal management in EVs. Introduction to EV components and their functions: Battery Cells, Fuel Cells, Electric

motors, Other Power Electronics Components: Operation and types, mechanisms of heat generation, materials, different electrochemistry, power and energy densities, applications, favourable operating conditions, effects of adverse conditions, thermal runaway. Cabin: Geometry, different surfaces, mechanisms of heat transfer through surfaces, occupant comfort, ASHRAE standards of comfort, metabolism, etc.

Module II – EV Thermal management at component level (8)

Battery, Fuel Cells, EM's, EMD's and other Power Electronics: BTMS - Cooling and heating requirements, types/methods, types of channels in cooling plates, temperature uniformity requirements, efficiency of different cooling systems, pressure drops, heat transfer characteristics, heat transfer mechanisms.

Cabin: Cooling and heating requirements, types/methods - single zone, multi zone, localized heating/cooling, heated surfaces, radiant panels, methods to minimize heat loss/gain.

Module III - EV Thermal management at sub-system level (8)

Active and Passive cooling. Air cooling - natural and forced convection, Enablers (types of air blowers, special design for natural convection. Case studies – applications and limitations Liquid cooling - Forced convection and enablers. Types, fundamentals, materials. Other cooling methods - Immersive cooling, spray cooling, heat pipes etc. Techniques fluids, Applications and limitations.

Sub systems - Battery cooling circuit, cabin air circuit, refrigerant circuit, battery and cabin heating. Interfaces and interactions - positioning /placement of components.

Module IV - Safety Considerations in Thermal Management (4)

Overview of safety issues related to battery thermal runaway Strategies for preventing and mitigating thermal runaway, Impact of winding and core temperatures in electric machine performance, Safety standards in Industry.

Module V - Mathematical modelling and simulations (12)

Component and system Level: multi-dimensional and reduced order models for hydraulic and thermal performance (electric or chemical or electro-chemical) for battery packs, electric machines, EMDs and other power electronic components. Cabin: External/Internal thermal management- Modelling of enablers, integration and system.

TEXTBOOKS/ REFERENCE BOOKS

1. Thermal Management of Electric Vehicle Battery Systems by Ibrahim Dincer (DOI:10.1002/9781118900239)
2. Electric and Hybrid Electric Vehicles by James D. Halderman and Curt Ward (ISBN-13: 9780137532193)
3. Modern Electric Hybrid Electric & Fuel Cell Vehicles, by Stefano Longo, Mehrdad Ehsani,and Yimin Gao (ISBN-13- 978-1498761772)

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ONLINE/E-RESOURCES

1. https://archive.nptel.ac.in/courses/108/106/108106170/ (Fundamentals of Electric vehicles: Technology & Economics, NPTEL- IIT Madras)
2. https://archive.nptel.ac.in/courses/108/103/108103009/ (Introduction to Hybrid and Electric Vehicles, NPTEL – IIT Guwahati)

LECTURE PLAN

Lecture No.	Topics to be covered
1	Introduction to Electric Vehicles
2	EV Powertrain Components
3	Battery Cells and Electrochemistry
4	Heat Generation in Batteries and Thermal Runaway
5	Fuel Cells and Their Thermal Characteristics
6	Electric Motors and Power Electronics
7	Fundamentals of Thermal Management in EVs
8	Cabin Thermal Management and Human Comfort
9	Advanced Cooling and Heating Technologies
10	Future Trends and Challenges in EV Thermal Management
11	EV Powertrains and Thermal Management Needs
12	Battery Thermal Management Systems (BTMS): Cooling and Heating Requirements
13	BTMS: Cooling Methods, Channel Designs, and Temperature Uniformity
14	BTMS: Efficiency of Cooling Systems, Pressure Drops, and Heat Transfer Characteristics
15	Thermal Management of Fuel Cells, Electric Motors, and Power Electronics
16	Cabin Thermal Management: Cooling and Heating Requirements & Methods
17	Cabin Thermal Management: Heat Loss/Gain Minimization and Advanced Techniques
18	Future Trends in EV Thermal Management and System Optimization
19	Introduction to Active and Passive Cooling in EV Thermal Management
20	Air Cooling: Natural & Forced Convection, Enablers, and Case Studies
21	Liquid Cooling: Forced Convection, Types, Fundamentals, and Materials
22	Other Cooling Methods: Immersive Cooling, Spray Cooling, Heat Pipes – Techniques and Applications
23	Thermal Management Subsystems: Battery Cooling Circuit, Cabin Air Circuit, Refrigerant Circuit - 1
24	Thermal Management Subsystems: Battery Cooling Circuit, Cabin Air Circuit, Refrigerant Circuit - 2
25	Battery and Cabin Heating: Methods, Challenges, and Efficiency Considerations
26	Interfaces and Interactions: Component Placement, System Integration, and Optimization
27	Overview of Safety Issues Related to Battery Thermal Runaway

28	Strategies for Preventing and Mitigating Thermal Runaway
29	Impact of Winding and Core Temperatures on Electric Machine Performance
30	Safety Standards in the EV Industry: Batteries, Electric Machines, and Thermal Systems
31	Integrated Safety Approaches and Future Trends in EV Thermal Safety
32	Introduction to Multi-Dimensional and Reduced Order Modeling
33	Hydraulic and Thermal Performance Modeling for Battery Packs
34	Modeling of Thermal and Electrochemical Behavior in Batteries
35	Thermal Modeling of Electric Machines and Their Performance Impact
36	Hydraulic and Thermal Performance of Power Electronics and EMDs
37	Cabin Thermal Management: External and Internal Heat Transfer Considerations
38	Modeling of Enablers for Cabin Thermal Management
39	Integration of Thermal Models at the System Level
40	Optimization of Multi-Domain Models for EV Thermal Performance
41	Future Trends in EV Thermal Modeling and System Integration -1
42	Future Trends in EV Thermal Modeling and System Integration - 2

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Centre for Energy & Environment
MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

Scheme/Specialization: M.Tech. (Renewable Energy)

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
	Sustainability Studies	3	3	0	0	0

PREREQUISITE
None

COURSE OBJECTIVE(s)
This course aims to equip students with a comprehensive understanding of sustainability concepts, assessment tools, and global policies, enabling them to evaluate environmental impacts and carbon footprints. It also provides in-depth knowledge of GHG emissions, decarbonization strategies, ESG standards, and sustainability reporting frameworks to support sustainable business practices and regulatory compliance.

COURSE OUTCOMES:

CO1	To understand the concept of sustainability.
CO2	To learn to design and implement practical solutions for sustainability challenges in various sectors
CO3	To enhance critical thinking and problem-solving skills to tackle complex sustainability issues, considering the long-term effects of environmental and societal changes.

COURSE ASSESSMENT
The Course Assessment (culminating to the final grade), will be made up of the following three components;

S. No.	Component	Weightage
a)	Weekly Submissions/assignments/ Quizs	20%
b)	Mid-term examination	30%
c)	Practical Examination	NA
d)	End Semester Examination	50%

COURSE CONTENTS

Unit 1 : (Lectures:10)

Key concept of sustainability,Goals, Systems thinking, Life cycle thinking, Green economy, low carbon economy,Climate change concept,Climate change adaptation and mitigation, Role of industry and global warming, Measurement and procedure to assess global warming,National and international response and policies on sustainable development.

Unit 2: (Lectures:10)

Tools for sustainability assessment, Procedural Tools and Analytical Tools,Life cycle assessment, Environmental impact assessment, stakeholder engagement, Ecological Footprint and Carbon Footprint analysis, Water Footprint and Audits, Multi-Criteria Decision Analysis (MCDA) for sustainability evaluations,SDGs indicators,Circular economy transitions

Unit 3:(Lectures:10)

Introduction to GHG Emissions, Introduction of Scope 1,2 and 3 Emissions, Introduction to SBTi, Introduction to Decarbonization, GHG accounting principles, Design and development of GHG projects,

Establishing GHG boundaries, Quantifying and monitoring GHG emissions,IPCC Database on Greenhouse Gas Emission Factors, ISO 14064 standard, GHG Emission Calculations, Preparing project report,

Unit 4:(Lectures:12)
Introduction of different ESG standards, IFRS 1 - General Disclosures, IFRS 2 - Climate-Related Disclosures, Understanding Sustainability Reporting, Key Components of a Sustainability Report,

Different Reporting Framework, Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), Business Responsibility & Sustainability Reporting (BRSR), Carbon Disclosure Project (CDP),Task Force on Climate-related Financial Disclosures (TCFD).Emerging ESG focused regulations, CSR, Green initiatives

References:

1. Hill, John. Environmental, Social, and Governance (ESG) investing: A balanced analysis of the theory and practice of a sustainable portfolio. Academic Press, 2020.
2. Ramjeawon, Toolseeram. Introduction to Sustainability for Engineers. CRC Press, 2020.
3. Curran, Mary Ann, ed. Life cycle assessment handbook: a guide for environmentally sustainable products. John Wiley & Sons, 2012.

Online Video links:

4. NPTEL Video https://www.youtube.com/watch?v=X3w4iauznuc

5. NPTEL Video https://www.youtube.com/watch?v=0g5iK7jMgFc

Lecture Plan (Total 42 Lectures)

Lecture Numbers	Topic Covered
	(Unit 1): 10 Lectures
3 Lectures	Key concept of sustainability,Goals, Systems thinking, Life cycle thinking. Green economy, low carbon economy,,
2 Lectures	Climate change concept,Climate change adaptation and mitigation
3 Lectures	Role of industry and global warming, Measurement and procedure to assess global warming,
2 Lecture	National and international response and policies on sustainable development.
	(Unit 2): 10 Lectures
3 Lectures	Tools for sustainability assessment, Procedural Tools and Analytical Tools,Life cycle assessment, Environmental impact assessment, stakeholder engagement,
3 Lectures	Ecological Footprint and Carbon Footprint analysis, Water Footprint and Audits,
3 Lectures	Multi-Criteria Decision Analysis (MCDA) for sustainability evaluations
1 Lecture	SDGs indicators,Circular economy transitions
	(Unit 3):10 Lectures
2 Lectures	Introduction to GHG Emissions, Introduction of Scope 1,2 and 3 Emissions,
3 Lectures	Introduction to SBTi, Introduction to Decarbonization, GHG accounting principles, Design and development of GHG projects,
2 Lectures	Establishing GHG boundaries, Quantifying and monitoring GHG emissions,IPCC Database on Greenhouse Gas Emission Factors,
2 Lectures	ISO 14064 standard, GHG Emission Calculations,
1 Lecture	Preparing project report,
	(Unit 4): 12 Lectures
3 Lectures	Introduction of different ESG standards, IFRS 1 - General Disclosures, IFRS 2 - Climate-Related Disclosures,
5 Lectures	Understanding Sustainability Reporting, Key Components of a Sustainability Report, Different Reporting Framework, Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), Business Responsibility & Sustainability Reporting (BRSR),
4 Lectures	Carbon Disclosure Project (CDP),Task Force on Climate-related Financial

	Disclosures (TCFD).Emerging ESG focused regulations, CSR, Green initiatives

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

Scheme/Specialization: RM-II (Open Elective) for Ph.D.

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
21ECT564	Modeling, Optimization & Transforms	2	2	0	0	0

PREREQUISITE

Mathematical Foundations/ Optimization Techniques/Numerical Methods/Transforms

COURSE OBJECTIVE(s)

The following contents intend to cover implicit application to and exemplification through ECE problems in signal processing, probabilistic signal theory, optimization and soft-computing

COURSE OUTCOMES:

CO1	To learn the advancement in transforms
CO2	To understand the mathematical modeling and optimization techniques
CO3	To learn the data mining techniques
CO4	To explore the engineering applications of the mathematical techniques
CO5	To develop MATLAB and other programming skills for the mathematical techniques realization

COURSE ASSESSMENT

The Course Assessment (culminating to the final grade), will be made up of the following components as per new PG Rules;

Sr. No.	Theory Courses	
	Evaluation Component	Weightage
1.	Class-Work Sessional (CWS)	20% - 30%
2.	Mid-Term Exam (MTE)	20% - 40%
3.	End-Term Exam (ETE)	30% - 50%

COURSE CONTENTS

Unit I- Advancements in Transforms: Discrete Fourier Transform, FFT, Short time Fourier Transform (STFT), Multi Resolution Analysis, Wavelet Transform, Continuous Wavelet Transform (CWT), Inverse CWT, Discrete Wavelet Transform, Sub-band coding and implementation of DWT, Applications (signal and image compression, de-noising, detection of discontinuous and breakdown points in signals), Discrete Cosine Transform, Stockwell-transform, Frequency selective filtering with wavelet and S-transform.

(No. of lectures- 8)

Unit II- Modeling: Direct Modeling (identification), Inverse Modeling(Equalization), Classification and Clustering, Prediction/Forecasting, Auto regressive models (AR, MA, ARMA).

(No. of lectures- 7)

Unit III- Optimization: Problem formulation, Linear Programming Problems, Solution by Graphical Methods, Symmetric Dual Problems, Slack and Surplus Variables, Simplex Method, Convex- Concave Problems.

(No. of lectures- 8)

Unit IV- Data Mining Techniques: Higher Order Statistics, Principal Component Analysis, Linear Discriminant Analysis, Independent Component Analysis

(No. of lectures- 5)

TEXT BOOKS/ REFERENCE BOOKS (Title, Authors, Publisher & Year):-

1. Digital Signal Processing: Principles, Algorithms, and Applications 4 Edition, Author: John G. Proakis, Dimitris G Manolakis Publisher: Pearson.
2. Wavelets and Signal Processing, Author: Hans-Georg Stark, Publisher: Springer
3. The Wavelet Tutorial : The Engineer's Ultimate Guide to Wavelet Analysis, Author : RobiPolikar, University of Rowan : Online : http://users.rowan.edu/~polikar/WTtutorial.html
4. Stockwell, Robert Glenn, Lalu Mansinha, and R. P. Lowe. "Localization of the complex spectrum: the S transform." IEEE Transactions on Signal Processing 44.4 (1996): 998-1001.
5. Engineering Optimization: Theory and Practice, Third Edition SINGIRESU S. RAO, New Age Publishers
6. Data Mining - Concepts and Techniques, Authors : Jain Pei, Jiawei Han, Micheline Kamber, Publisher : Elsevier

Lecture Plan

Lecture No.	Topics to be covered
1	Discrete Fourier Transform, FFT
2	Short time Fourier Transform (STFT)
3	Multi Resolution Analysis
4	Wavelet Transform, Continuous Wavelet Transform (CWT)
5	Inverse CWT, Discrete Wavelet Transform, Sub-band coding and implementation of DWT
6	Applications (signal and image compression), denoising
7	detection of discontinuous and breakdown points in signals), Discrete Cosine Transform
8	Stockwell-transform, Frequency selective filtering with wavelet and S-transform.
9	Direct Modeling (identification)
10	Inverse Modeling(Equalization)
11	Classification and Clustering
12	Prediction/Forecasting
13	Auto regressive models (AR, MA, ARMA)
14	Auto regressive models (AR, MA, ARMA)
15	Auto regressive models (AR, MA, ARMA)
16	Problem formulation
17	Linear Programming Problems
18	Solution by Graphical Methods
19	Symmetric Dual Problems
20	Symmetric Dual Problems
21	Slack and Surplus Variables
22	Simplex Method
23	Convex- Concave Problems
24	Higher Order Statistics
25	Principal Component Analysis
26	Linear Discriminant Analysis
27	Linear Discriminant Analysis
28	Independent Component Analysis

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

Scheme/Specialization: RM-II (Open Elective) for Ph.D.

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
	Mathematical Foundations for Research	2	2	0	0	0

PREREQUISITE

Mathematical Foundations/ Optimization Techniques/Numerical Methods/Transforms

COURSE OBJECTIVE(s)

The course prepares the incoming doctoral student with the mathematical foundations required for pursuing research in the topics of electronics and communication engineering.

COURSE OUTCOMES:

CO1	To grasp core concepts of mathematics required in Modelling, design and analysis of engineering systems
CO2	To choose appropriate mathematical concept in a given electronics design problem
CO3	To identify & apply an algorithm relevant to given engineering problem
CO4	To learn & solve the mathematically modelled equations both analytically and numerically
CO5	To comprehend mathematically intense scientific literature in Engineering

COURSE ASSESSMENT

The Course Assessment (culminating to the final grade), will be made up of the following components as per new PG Rules;

Sr. No.	Theory Courses	
	Evaluation Component	Weightage
1.	Class-Work Sessional (CWS)	20% - 30%
2.	Mid-Term Exam (MTE)	20% - 40%
3.	End-Term Exam (ETE)	30% - 50%

COURSE CONTENTS

Unit I- Mathematical Foundational concepts: Basics of Linear Algebra, Probability and Random Variables, Stochastic Processes, Spectral Representation, Mean Square Estimation

(No. of lectures- 10)

Unit II- Mathematical Foundations for ODEs: Vector Analysis, Vector Calculus, Theory of complex variables, Series Solution of Differential Equations, Sturm Liouville Theory, Bessel Functions, Legendre Functions, Fourier Series and Fourier Transforms

(No. of lectures- 9)

Unit III- Partial Differential Equations: Laplace and Poisson's Equations, Wave Equations, Analytical and Numerical Solutions of the PDEs. Green's Function, Optimization and Computational techniques

(No. of lectures- 9)

Text Books:-

1. Papoulis, Athanasios, and H. Saunders. "Probability, random variables and stochastic processes." (1989): 123-125.
2. Riley, Kenneth Franklin, et al. Mathematical methods for physics and engineering: a comprehensive guide. Cambridge university press, 2002.

Reference books:-

3. McEliece, Robert, and Robert J. Mac Eliece. The theory of information and coding. Cambridge University Press, 2002.
4. Balanis, Constantine A. Advanced engineering electromagnetics. John Wiley & Sons, 1999.

Online/E resources:-

1. NPTEL course on Partial Differential Equations
2. NPTEL course on Probability and Random Processes

Lecture Plan

Lecture No.	Topics to be covered
1	Basics of Linear Algebra
2	Basics of Linear Algebra
3	Probability
4	Probability
5	Random Variables
6	Random Variables
7	Stochastic Processes
8	Stochastic Processes
9	Spectral Representation
10	Mean Square Estimation
11	Vector Analysis
12	Vector Calculus
13	Theory of complex variables
14	Series Solution of Differential Equations
15	Sturm Liouville Theory
16	Bessel Functions
17	Legendre Functions
18	Fourier Series
19	Fourier Transforms
20	Laplace and Poisson's Equations
21	Laplace and Poisson's Equations
22	Wave Equations
23	Analytical Solutions of the PDEs
24	Numerical Solutions of the PDEs
25	Numerical Solutions of the PDEs
26	Green's Function
27	Optimization techniques
28	Computational techniques

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

Scheme/Specialization: RM-II (Open Elective) for Ph.D.

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
21ECT544	**Reduced order Modeling, Optimization & Machine intelligence**	2	2	0	0	0

PREREQUISITE

Linear Algebra/ Calculus/Optimization Techniques/Basic Machine Learning Techniques

COURSE OBJECTIVE(s)

The following contents intend to cover implicit application to and exemplification through ECE research problems in Electronic systems/Cognitive-systems domain such as reduced order polynomials, order reduction of a transfer function,sparse matrix based solution of large systems, discrete structures, implementation of search algorithms for design space exploration, and computer arithmetic implementation alongwith probabilistic reasoning for AI

COURSE OUTCOMES:

CO1	To grasp core concepts, basic tenets of linear algebraic structures-groups, fields and rings; vector spaces (knowledge)
CO2	To grasp features, properties and operations on vector spaces-orthogonalization, change of basis, diagonalization (knowledge)
CO3	To learn & apply problem solving for computing eigen values and eigen vectors etc. (Thinking, skills)
CO4	To demonstrate application of algorithms (Gerschgorin, Sturm sequence method, QR method) for eigen valuc computation/estimation and MATLAB/SCILAB validation(skills)
CO5	To describe algorithms for function approximation, fitting (rational, Chebychev, Pade etc.) using MATLAB (skills)
CO6	Develops appreciation for combinatorial optimization algorithms, AI Probabilistic approaches & implements through MATLAB/C++/SCILAB (skills)

List of Inactive UG Students having absence for more than 02 semesters and are on the stage of Termination

S No.	Degree	Department	Student Id	Student Name	Date of Change of Student status to "Inactive"	No. of GAP pending semesters	Minimum Credits Required	Registered Credits	Earned Credits	CGPA	Communication received from the Dept.	
1	B.Arch	ARCHITECTURE AND PLANNING	2018UAR1788	CHRIS VINAY DEVARAPALLI	17-01-2024	3	229	193	135	3.34		
2	B.Arch	ARCHITECTURE AND PLANNING	2019UAR1244	NITIN MEENA	17-01-2024	3	229	102	47	2.16		
3	B.Arch	ARCHITECTURE AND PLANNING	2020UAR1120	JONATHAN WILLIAM N	27-07-2023	4	229	72	40	2.91	Wants to take institute withdrawal. Matter already discussed in previous Senate Meeting.	
4	B.Arch	ARCHITECTURE AND PLANNING	2023UAR1180	PURAB YADAV	17-01-2024	3	236	23	0	0		
5	B.Tech	CHEMICAL ENGINEERING	2019UCH1562	ANMOL BHANDARI	14-08-2023	4	194	196	193	5.16	Wants to register his pending backlog in next supplementary examination i.e. July 2025	Mercy case after termination
6	B.Tech	CHEMICAL ENGINEERING	2020UCH1617	NAWAL MEENA	17-08-2022	6	194	100	67	3.71	Not willing to continue his B.Tech. program	
7	B.Tech	CHEMICAL ENGINEERING	2021UCH1660	PRASHANT KUMAR	17-01-2024	3	194	125	40	1.5	Could not be approched	
8	B.Tech	COMPUTER SCIENCE AND ENGINEERING	2017UCP1128	PRIYANKA MEENA	17-01-2024	3	200	163	102	3.09	Mercy denied in previous Senate meeting	Terminating
9	B.Tech	COMPUTER SCIENCE AND ENGINEERING	2020UCP1021	SATYAM KUMAR	12-08-2023	4	200	154	98	3.82	Wants to continue his B.Tech. Degree	Mercy case after termination
10	B.Tech	ELECTRONICS AND COMMUNICATION ENGINEERING	2017UEC1064	MUJAHID MANSURI	17-08-2023	3	201	126	62	2.56	The student and his father are informed about the situation. The students father was not aware of the situation . The students father has informed that he will visit the college and request for mercy, however they have not visited till date.	
11	B.Tech	ELECTRONICS AND COMMUNICATION ENGINEERING	2019UEC1327	SHLOK DHARMESH MANGE	17-08-2023	3	201	165	93	3.4	The student has informed that he has taken admission at some other place and he want to withdraw from MNIT Jaipur. He is advised to send an official communication regarding the same.	
12	B.Tech	ELECTRONICS AND COMMUNICATION ENGINEERING	2020UEC1789	ADITYA RAJ	22-11-2022	5	201	101	87	5.54	The student has informed that he could not continue the studies due to personal reasons, he want to continue now and he will be regular from next semester. He has submitted a mercy plea and same is forwarded with DUGC recommendation to academic section.	Mercy case after termination
13	B.Tech	MECHANICAL ENGINEERING	2020UME1081	ANKIT	17-02-2022	7	197	73	40	3.9		
14	B.Tech	METALLURGICAL AND MATERIALS ENGINEERING	2019UMT1269	UDBHAV NAVIN CHITRANSH	17-08-2023	4	199	199	191	5.72	Wants to continue his B.Tech. Degree and has requested for two semester withdrawals and activate his MNIT ERP. Matter is put up seperatly for consideration and approval. (matter under consideration)	Mercy case after termination
15	B.Tech	METALLURGICAL AND MATERIALS ENGINEERING	2021UMT1828	NARESH KUMAR	19-02-2024	3	199	74	50	3.36		
16	B.Tech	METALLURGICAL AND MATERIALS ENGINEERING	2021UMT1864	DEEPAK KHARERA	18-01-2024	3	199	82	32	1.54		
17	B.Tech	METALLURGICAL AND MATERIALS ENGINEERING	2022UMT1942	AYUSH DUBEY	18-01-2024	3	188	78	53	3.87		

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Annexure-F

A committee was constituted vide Office Order No. 4438 dated 03/01/2025 (copy attached) to draft guidelines for audit courses and submit recommendations to SUGB. The committee held a meeting on January 07, 2025. The recommendations of the committee are as follows:

Agenda: *Common Framework and Guidelines for Audit Courses*

Objective:

To establish guidelines for audit courses, aligning with the institution's policy that audit courses are optional and are in addition to the prescribed academic load requirement. The specific aim is to resolve existing discrepancies, particularly regarding "compulsory audit courses," and formalize policy to maintain the intended structure and purpose of audit courses.

Current System:

- Existing audit course guidelines stipulate that audit courses are optional, non-credit, and require course coordinator permission.
- Audit courses do not contribute to earned credits but may be recognized through a certificate of completion at the course coordinator's discretion.

Challenges with the Current System:

- Instances of audit courses being labeled "compulsory," which contradicts the principle that audit courses are optional.
- Lack of uniformity in how audit courses are presented to students, leading to misunderstandings regarding credit requirements.
- Potential difficulty in tracking any inconsistency in minimum eligibility for a degree.

Proposed Recommendations:

- Audit courses shall be optional and should not be part of any mandatory credit requirement.
- The regular registration process should be followed for audit courses as well.
- Audit courses shall not influence CGPA/SGPA as they are voluntary, optional courses.
- Audit courses shall not be included in the minimum earned credit requirement for any program.
- The number of audit courses to be registered per semester shall be limited by the maximum credit limits prescribed in the regulations.
- Core courses from the parent department shall not be audited (while electives may be audited); however, the core courses of other departments can be audited.
- Departments are not required to reschedule classes for audit courses if clashes arise.

09/01/25

Annexure-I

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY
Office of Dean Academics

Meeting with Head of the Departments

Date: April 12, 2022

Subject: Minutes of the Meeting

The proposed curricular structure of UG programmes was placed for consideration of the Senate of MNIT Jaipur vide agenda item no. 44-3.1. The Senate accorded its 'In Principle' approval to the same. Some points/suggestions were raised by few senators and the Senate resolved that the Dean Academics shall hold a meeting with the Head of the Departments to form a consensus on the various points submitted by the senators. The suggestions given by the senators are as given below, along with the proposer's name

Prof. Himanshu Chaudhary

A. Basic sciences courses need not be common across various disciplines and every science department may offer multiple courses with different course contents which can be chosen by different department for their respective UG programmes,

Prof. ML Mittal

B. Offering a basic course of mechanical engineering (both theory and laboratory) under 'Institute Core' category
C. Offering a course on drawing and sketching under 'Institute Core' category for all the students to impart knowledge of sketching and 3D visualization.

Prof. Vatsala Mathur

D. The mathematics courses have been proposed with a L-T-P structure of 2-1-0 and it will be difficult to complete the syllabus with this contact structure as well as reducing the syllabus of the courses so as to complete the same in the proposed L-T-P structure will result in leaving out some important topics.

Prof. Vijay Janyani

E. It will be difficult to conduct the proposed course of Basics of Electronics and Electrical Engineering (L-T-P structure of 3-0-0) jointly with the Department of Electrical Engineering and it will be good to break this course into two different units each having a L-T-P structure of 2-0-0.

The meeting was held on April 12, 2022 at 03:30 PM in the Old Senate Hall, Prabha Bhawan, MNIT Jaipur. The meeting was attended by the following members:

• Prof. Urmila Brighu	Dean, Academics
• Prof. Jyoti Joshi	Head, Department of Chemistry
• Prof. M.L. Mittal	Head, Department of Mechanical Engineering
• Prof. R.K. Goyal	Head, Department of Metallurgical and Materials Engineering
• Prof. R.K. Vyas	Representing the Head, Department of Chemical Engineering
• Prof. Rajeev Tiwari	Head, Department of Electrical Engineering
• Prof. Sanjay Mathur	Head, Department of Civil Engineering
• Prof. Vijay Janyani	Head, Department of Electronics and Comm. Engineering
• Dr. Dinesh Gopalani	Head, Department of Computer Science and Engineering
• Dr. Dipti Sharma	Head, Department of Humanities and Social Sciences

• Dr. Kamlendra Awasthi	Head, Materials Research Centre
• Dr. Nand Kumar	Head, Department of Architecture
• Dr. Vatsala Mathur	Head, Department of Mathematics
• Dr. Venkataratnam Kamma	Representing the Head, Department of Physics
• Dr. Vivekanand V.	Head, Center for Energy and Environment
• Dr. Sumit Khandelwal	Associate Dean (UG)

All the above points were discussed in the meeting and the resolutions are given hereunder.

A. It was decided that the Department of Chemistry and Department of Physics will prepare multiple course contents (minimum two, one for the circuit branches and other for non-circuit branches) in consultations with the various departments. It was also decided that both the departments will be offering two courses (one theory and one laboratory) with a total of 4 credits. The departments may make a choice of (3-0-0 and 0-0-2 or 2-1-0 and 0-0-2 or 3-1-0 and 0-0-2/2 for theory and laboratory courses, respectively). However, the L-T-P structure will be common across all the different courses of one department.

B. It was decided that a course on' Introduction to Mechanical Systems' with a L-T-P structure of 2-0-0 and 'Product Realization through Manufacturing' with a L-T-P structure of 0-0-2 will be offered by the Department of Mechanical Engineering. It was suggested that the course on 'Product Realization through Manufacturing' shall include advanced and recent technologies and may exclude less relevant technologies.

C. It was discussed that the fundamentals of various projections shall be covered before the students can be exposed to any 3D visualization or associated sketching. Hence, it was decided that the course of Computer Aided Engineering Drawing with a proposed L-T-P structure of 1-1-1 will be sufficient to provide fundamentals of drawings to the students of UG programmes. If any department wishes to train students for higher learning in this area, a corresponding course can be offered under the Programme linked Engineering Arts and Sciences category. It was also discussed that the nomenclature of proposed course on Computer Aided Engineering Drawing may be revised to 'Engineering Drawing and Sketching' to eliminate unnecessary emphasis given to the drawing tool instead of the course.

D. It was decided that the L-T-P structure of both the courses of mathematics may be kept as 3-1-0 i.e. same as being offered under the current scheme.

E. It was decided that the proposed course on Basics of Electronics and Electrical Engineering shall be offered jointly by the departments and the coordination of the same may be decided by the departments as per mutual convenience.

In light of the above decisions/recommendations, the credits under Institute Core category increase to 36 from the current proposed credits of 33. This increase of credits in Institute Core courses will be compensated by bringing the limit of Discipline Specific Courses to 121 – 139 (against 124 – 142, as proposed for B.Tech. only degree).

The meeting was concluded with thanks to the chair.

Table 1: Credit Structure (revised) for the Proposed Scheme

Course type	Proposed scheme		
	B. Tech. Only	B. Tech. with Honors	B. Tech. with Minor Specialization
Total Credits	**178 – 184**	**196 – 202**	**196 – 202**
Institute core	**36#**	Same as for B.Tech. only programme	Same as for B.Tech. only programme
Basic Sciences	*16[a]*		
Fundamental Engg. (EAS)	*15[b]*		
Humanities & Social Science	*5[c]*		
Discipline specific courses	**121 – 139#**	124 – 142 + 18**	Same as for B.Tech. only programme
Programme core	*109 – 136*	*124 - 154*	
Programme elective			
Advance elective			
Project	*3 – 12*	*3 – 12 + (0 – 3)***	
Management	*3*	*3*	
Other courses	9 – 21	Same as for B.Tech. only programme	9 – 21 + 18**
Open electives	*6*		*As per detail of minor program*
Programme linked EAS/BS	*3 – 15*		

a: These courses include

Chemistry	**(3 credits, 2-1-0)#**
Chemistry Lab	(1 credit, 0-0-2)
Mathematics I	**(4 credits, 3-1-0)#**
Mathematics II	**(4 credits, 3-1-0)#**
Physics	**(3 credits, 2-1-0)#**
Physics Lab	(1 credit, 0-0-2)

b: These courses include

Basics of Electronics and Electrical Engg.	(3 credits, 3-0-0)
Electrical Engineering Lab	(1 credit, 0-0-2)
Electronics Engineering Lab	(1 credit, 0-0-2)
Engineering Drawing and Sketching	**(2 credits, 1-1-1)#**
Computer Science and Programming	(2 credits, 2-0-0)
Programming Lab	(1 credit, 0-0-2)
Environmental Science and Ecology	(2 credits, 2-0-0)
Introduction to Mechanical systems	**(2 credits, 2-0-0)#**
Product Realization through Manufacturing	**(1 credit, 0-0-2)#**

Programme linked EAS courses can be taken from the pool of other courses.

c: These courses include

Basic Economics	(2 credits, 2-0-0)
Technical Communication (Basic/ Advanced)	**(2 credits, 2-0-0)#**
Language lab (Basic/ Advanced)	**(1 credit, 0-0-2)#**

#: Revised on the basis of discussions in the meeting with the Head of the Departments

**: For Honors/Minor program as applicable

Table 2: Credits and contact hours of Current and Proposed Schemes

Semester	Current Scheme		Proposed scheme					
			B. Tech. Only		B. Tech. with Honors		B. Tech. with Minor Specialization	
	Credits	Contact Hours per week	Credits	Contact Hours per week	Credits	Contact Hours per week	Credits	Contact Hours per week
Semester I	24	28/27	25	28	25	28	25	28
Semester II	22	27/28	25	28	25	28	25	28
Semester III	23 – 26	26 – 29	25	28	25	28	25	28
Semester IV	23 – 27	28 – 30	25	28	25	28	25	28
Semester V	24 – 26	27 – 30	21	24	21 + 6	31	21 + 6	31
Semester VI	24 – 26	27 – 30	21	24	21 + 6	31	21 + 6	31
Semester VII	16 – 26	18 – 32	18#	20	18 + 3	24	18 + 3	24
Semester VIII	23 – 32	24 – 33	18*	20	18 + 3	24	18 + 3	24

#: Including 3 credits for minor project (mandatory for every student)

*: Including 6- 9 credits for major project (optional)

~: The range of ratio of total teaching load of a program to total graded credit units, as per the current schemes, is 1.11 to 1.14 (Dept. of ECE has 1.20). An average factor of 1.13 has been used to calculate teaching load from credits in a particular semester.

A. The above limits of credits for each semester are indicative and the departments may revise the above limits by ± 2 credits for each semester.

B. Two projects have been proposed in the new scheme. The minor project (3 credits) will be carried out during VII semester while major project will be carried out during VIII semester (6 – 9 credits). Minor project will be compulsory for all students of the department. Major project will be optional for B.Tech. only program, and the student may earn the required credits against major project through elective courses offered by the parent department. However, students opting for Honors/ Minor Specialization/Internship have to compulsorily register for major project in VIII semester.

C. A student will be allowed to register for 2 additional theory courses beyond the regular courses in a particular semester.

D. The students will have the option to choose from a basket of multiple sub-domains within the parent department (through Honors) or sub-domains of departments other than the parent department (Minor Specialization).

E. Requirements for Honors and Minor Specialization programs

i. Honors and Minor programs start from V Semester.

ii. Minimum CGPA requirements for registration shall be 7.50 at the end of IV semester. Students of a department will be allowed to register for Honors program offered by their parent department, while students of a department will be allowed to register for Minor program offered by any other department.

iii. Number of additional credits shall be 18 with 6 courses (or 5 courses + 1 mini project of 3 credits) as prescribed by the department offering Honors/Minor program.

iv. The student is required to plan registration for Honors/Minor program courses, in order to complete all the six courses by the end of VIII semester.

v. Maximum number of students enrolled in any course of a Minor program shall be 30. The allotment of students in the minor program shall be on the basis of CGPA.

vi. The student will not be allowed to continue/register for Honors/ Minor specialization if his/her CGPA falls below 7.50. In case, his/her CGPA improves to 7.50 or higher in subsequent semester(s), he/she may be allowed to continue.

vii. Students should be prepared to write more than one exam in a day.

F. After successful completion of the requirements of the Honors program, the student will be awarded a degree in "name of the discipline" with "Honors" (e.g. Bachelor of Technology in Civil Engineering with Honors or Bachelor of Technology in Mechanical Engineering with Honors etc.).

G. After successful completion of the requirements of the Minor program, the student will be awarded a degree in "name of the discipline" with minor specialization in "name of the minor specialization" (e.g. Bachelor of Technology in Electrical Engineering with Minor Specialization in Environmental Engineering or Bachelor of Technology in Computer Science and Engineering with Minor Specialization in Quantum Mechanics etc.).

H. Students will have following exit options:

Table 3: Exit options and eligibility condition

S. No.	Exit option with	Eligibility Condition
1	Diploma Certificate	After successfully completing all courses of I to IV semesters or The student has earned 100 credits through graded courses
2	B.Sc. Degree	After successfully completing all courses of I to VI semesters or The student has earned 142 credits through graded courses
3	B.Tech. Degree	After successfully completing all courses of I to VIII semesters

I. Maximum duration of completing a UG program shall be 6 years (12 semesters) from initial registration excluding semester withdrawals, if the student has not exercised any exit option and has completed his registration in every semester.

J. Maximum duration of completing a UG program shall be 8 years (16 semesters) from initial registration excluding semester withdrawals, for students who have exercised any exit option given in table 3 above.

K. Non-graded credits need to be earned by the students.

L. A student seeking admission after exercising exit option needs to return original degree/diploma certificate to MNIT Jaipur.

M. Minor specialization can be offered by any department.

मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

दैनन्दिनी संख्या
MNIT Diary No.

पंजिका संख्या / FILE NO. .....

पृष्ठ संख्या
Page No.

कार्यालय टिप्पणी

Note Sheet

Pre- Page No-03

Subject: To consider the revised seat matrix for UG through DASA for academic session 2025-26.

12/N It is to submit that as per the F. No.35-10/2013-TS.III dated 13th February 2014, *redistribution of DASA seats is allowed with the flexibility of 0% to 30% in each branch provided the overall intake is limited to 15% of the admission capacity in an Institute.* Accordingly the seat matrix was submitted for DASA admissions.

13/N However, the seat matrix under this scheme was reduced previously due to the DASA candidates not filling the prescribed 15% intake threshold. Consequently, 55 seats were approved and offered for DASA admissions from the academic year **2016-17 to 2024-25**.

14/N In this Year 2025-2026, the UG seats were increased from 55 to 97 and after the approval, the same was offered to DASA admissions for AY 2025-26.

15/N On 15.7.2025, an email was received, regarding the anomaly in DASA 2025 seat matrix, wherein it is mentioned that as requested by NIT Rourkela, the seat matrix for DASA-UG needs to be revised as per MoE guidelines letter F.no-37-1/2023-TS.III dated 06.02.2025.The currently offered seats by MNIT Jaipur for DASA admissions in AY 2025-26 is **10.92 %** (copy enclosed).

16/N As per the aforesaid letter dated 06.02.2025, "Number of Seats reserved for this category of students in different Institutions shall be nearly **15%** of the total number of seats offered for admission". Therefore, the intake seat matrix for DASA admissions in AY 2025-26 should be 133 seats.

Accordingly, the revised seat matrix for the admission in the AY 2025-26, are as under:

UG Seat Matrix:

17/N

UG Programme	Seats for the children of Indian Workers in Gulf Countries (CIWG)	Others	Total
Architecture and Planning	1	3	4
Artificial Intelligence and Data Engineering	4	8	12
Chemical Engineering	2	4	6
Civil Engineering	2	5	7
Computer Science and Engineering	12	23	35
Electrical Engineering	5	10	15
Electronics and Communication Engineering	10	20	30
Mechanical Engineering	7	14	21
Metallurgical and Material Engineering	1	2	3
Total	**44**	**89**	**133**

Submitted for kind perusal and approval, please.

(P.T.O)

मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

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कार्यालय टिप्पणी

Note Sheet

The revised seat matrix of UG under DASA admission for AY 2025-26 is submitted for approval, please.

15/07/25

DR (Acad.)

Rattan 15/7/25

AD(UG) The revised seat matrix may be approved today considering the requirement to upload the same on DASA UG portal.

15/07/25

Dean (Acad) As per the communication received from NIT Rourkela (Annexure A) and the MoE guidlines (Annexure B) the DASA admission offered by the Institute should be nearly 15% of the total number of seats offered for UG admission. Accordingly, the revised seat matrix for UG through DASA for academic session 2025-26 proposed at Para 17 N is submitted for kind approval. If approved same will be put up for in upcoming senate.

15/07/2025

Chairman Senate.

703
15/07/25

3935
15/07/25

Dean (Academics)

15/07/2025

Approved
15/7/25

DR (Acad) 90 (ii)

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

Revised Internship Guidelines

A committee was constituted vide office order no. 4437 dated 03/01/2025 (copy attached) to review guidelines and submit recommendations to SUGB. The committee held two meetings on January 07, 2025, January 22, 2025 and January 28, 2025. The recommendations of the committee are as below.

Internship guidelines for UG and PG students

Students of the Institute (B.Tech./M.Tech./MSc) may proceed to other Academic Institutions/ R&D Organizations/ Industry in India or abroad as non-degree students under semester long internship. Semester long internship can be of one or two semester(s) duration and can be permitted in the final year of the B.Tech./M.Tech./MSc program. Guidelines below shall be followed for applying and processing internships cases.

Procedure for Applying for the internship

1. A student may pursue an internship at an industrial organization, research institutes (funded by the government of India or reputed institutes of any other country), or academic institutes (only CFTI in NIRF ranked below 100 or QS ranked within 500 outside India).
2. The student shall submit the internship application (Annexure A) in the prescribed format for consideration. Students must attach grade sheets with the application and complete all courses up to the VI (or VII) semester (for B.Tech)/II semester (for M.Tech./M.Sc.) to proceed with internships. No minimum CGPA requirement exists, but active backlogs disqualify students. The permission can be revoked if an FP/FA grade is awarded after approval but before the internship.
3. The internship application must be submitted to the Program Advisor/Project Supervisor (for B.Tech./M.Sc. students) or the Supervisor (for M.Tech. students) after approval from Prof. Incharge (T&P). In case the student is applying for internship in academic institutions/research institutions, the application can directly be submitted to program advisor/supervisor. Once all required documents are attached, the Program Advisor/Supervisor will forward the application to the DUGC/DPGC of the respective department or the centre.
4. Internship applications, with DUGC/DPGC minutes, will be sent to the Academic Section for processing and the Dean's approval. Two-semester internships in the VII and VIII semesters for B.Tech. students will require Senate Chair approval, limited to Fortune 500 or NIFTY 50 companies, and can be extended to a maximum of 20% of the class. Students may proceed for internship only after the office order is issued.
5. All the off-campus industry internship offers should be routed through the placement cell. The placement cell will check the proposed industrial organization's appropriateness as per prescribed parameters. Once the placement cell approves, the student will apply for permission as per the above procedure.
6. The last date for internship application will be communicated by the Academic section to all the students via the Academic Calendar.
7. The DUGC/DPGC will recommend internships with or without credit waivers (i.e., only attendance waivers). If the internship is not approved with a credit waiver, as per

3/2/25 3/2/25

recommendation of DUGC/DPGC, the Core/Elective courses will be converted to self-study mode. The grades for these courses can be transferred from platforms like MOOCs/SWAYAM/NPTEL as per provisions approved in the Senate, or the student can appear for both the mid-term (40% weightage) and end-term exam (60% weightage).

8. The student has to complete the industrial training as prescribed in the curriculum mandatorily. If the semester-long internship starts early and students do not have sufficient time for industrial training, the semester-long internship can be considered as industrial training.

Start and end of internship

9. The tentative date of start and completion of the internship shall be mentioned in the offer letter, which shall be attached to the application form. The minimum duration of a semester-long internship shall be 14 weeks.
10. The internship must commence early enough to be completed before the registration deadline of next semester as per the academic calendar. In the case of internship in the VIII semester, the internship should complete one week before the registration deadline of the next semester, failing which, the student will have to register for the next semester.

Credit waiver

11. Students may be granted a waiver of up to 16 credits or as approved in the Senate for an internship, regardless of its duration (semester or year-long). The waiver will be applicable only for elective courses; core courses are not eligible for credit waivers.
12. The student will have to present his/her work during the internship in front of a committee formulated by DUGC for credit waiver, along with the project report duly signed by the industry mentor/supervisor. The program advisor will be the convenor of this committee. The committee may approve credit waivers based on performance. If unsatisfied, the committee may deny the waiver, allowing the student to appear in supplementary exams. The grades for these supplementary exams will be awarded with no grade limit. In such cases, the academic section will convey to the individual course coordinator the status of the student's internship before the supplementary exam.
13. These recommendations for credit waiver will be submitted to the Academic section for the award of WR grades.
14. Core courses in VII/VIII semesters (if any), including minor/honors, will be self-study, with grades based solely on a 100% weightage of the end-term exam, scheduled by mutual convenience of student and course coordinator or can be transferred from platforms like MOOCs/SWAYAM/NPTEL as per provisions approved in the Senate.

Monitoring of Internship performance

15. The Minor/Major project supervisor of the student will take regular updates from the student. The project supervisor will conduct a midterm online evaluation, and the progress report will be submitted to the program advisor.
16. Faculty teams may visit the internship organization to interact with the student and the industry mentor so as to strengthen industry-institute partnership. The PT Cell will coordinate the teams' visits, and student performance reports will be submitted to the respective department.

3/2/25 3/2/25

17. In case of the dissatisfactory performance of the student on the internship, the faculty team may recommend discontinuing the internship, and the student will join the regular classes and appear for exams (both Midterm and End term). A special mid-term examination may be conducted for the student if he/she joins after the scheduled Mid-term examination. The student will be given full attendance at the institute for the period the student was on internship.
18. The students shall submit feedback about the internship after completion to the Training & Placement.

Guidelines on thesis work of PG students

19. PG students getting the offer for more than 6 months spanning over III and IV semesters will be required to :
    a. Submit a plan for his/her dissertation work within a month duly approved by the industry mentor and institute supervisor to DPGC, with clearly defined objectives.
    b. Submit a progress report to DPGC in every two months of his/her dissertation work forwarded by industry mentor and institute supervisor.
    c. Students will be expected to attend the evaluation of the required credits, either offline/online, depending on the nature of the work.

3/2/25
(Dr. Gunjan Soni)

3/2/25
(Dr. Kuldeep Singh)

ANNEXURE-A

Format for internship application

To,
The Dean Academics,
MNIT Jaipur

I..... Son /Daughter of ..... bearing Institute ID No..... want to join the Training/Internship for a period of one / two semester(s) starting from (date)..... to (date).....at.....
(Name and address of Internship Host Organization) offered to me On-campus/Off-campus.

1. I have fully read and understood the rules and regulations laid by the Institute and Host Organization and undertake to abide by them.
2. I have enclosed a copy of the offer letter from the Host Organization
3. I will proceed for an internship only after obtaining the Office Order from the Academic Section.

Kindly permit me to join the Internship as mentioned above.

(Student Signature)

Prof. I/C (T&P)*

Supervisor/Programme Advisor

Convener DPGC/DUGC

*NA in case of internship at academic/research institutions

Undergraduate Programmes

The intake/allocation of 888 seats for students from Rajasthan & other than Rajasthan states for the session 2025-26 are as follows:

Program Name	State / All India Seats	Seat Pool	OPEN	OPEN-PwD	EWS	EWS-PwD	SC	SC-PwD	ST	ST-PwD	OBC-NCL	OBC-NCL-PwD	Total
Architecture	Rajasthan	Gender-Neutral	11	1	3	0	5	0	2	0	8	0	30
		Female-only (including supernumerary)	3	0	0	0	1	0	1	0	2	1	8
Chemical Engineering	Rajasthan	Gender-Neutral	19	1	4	1	6	0	4	0	11	1	47
		Female-only (including supernumerary)	4	0	1	0	2	0	1	0	3	0	11
Civil Engineering	Rajasthan	Gender-Neutral	16	2	5	0	6	1	3	0	12	0	45
		Female-only (including supernumerary)	5	0	1	0	2	0	1	0	3	0	12
Computer Science and Engineering	Rajasthan	Gender-Neutral	17	1	4	1	7	0	3	0	13	1	47
		Female-only (including supernumerary)	5	0	1	0	2	0	1	0	2	0	11
Electrical Engineering	Rajasthan	Gender-Neutral	18	0	5	0	7	1	3	0	12	1	47
		Female-only (including supernumerary)	4	1	1	0	1	0	1	0	3	0	11
Electronics & Communication Engineering	Rajasthan	Gender-Neutral	18	0	5	0	8	0	2	1	12	1	47
		Female-only (including supernumerary)	5	1	1	0	1	0	1	0	3	0	12
Mechanical Engineering	Rajasthan	Gender-Neutral	18	1	4	0	6	1	4	0	12	1	47
		Female-only (including supernumerary)	5	0	1	0	2	0	1	0	3	0	12
Metallurgical & Materials Engineering	Rajasthan	Gender-Neutral	12	1	3	0	4	0	1	1	7	0	29
		Female-only (including supernumerary)	3	0	1	0	0	1	1	0	2	0	8
Artificial Intelligence and Data Engineering	Rajasthan	Gender-Neutral	7	0	1	0	2	0	1	0	5	0	16
		Female-only (including supernumerary)	0	0	1	0	1	0	1	0	1	0	4
		Total (A)	**170**	**9**	**42**	**2**	**63**	**4**	**32**	**2**	**114**	**6**	**444**

Assistant Registrar (Academic) **Dy. Registrar (Academic)** **Associate Dean (UG)**

Annexure-J

Program Name	State / All India Seats	Seat Pool	OPEN	OPEN-PwD	EWS	EWS-PwD	SC	SC-PwD	ST	ST-PwD	OBC-NCL	OBC-NCL-PwD	Total
Architecture	Other than Rajasthan	Gender-Neutral	12	1	3	0	5	0	2	0	7	1	31
		Female-only (including supernumerary)	3	0	1	0	1	0	1	0	2	0	8
Chemical Engineering	Other than Rajasthan	Gender-Neutral	18	1	5	0	6	0	4	0	11	1	46
		Female-only (including supernumerary)	4	0	1	0	2	0	1	0	3	0	11
Civil Engineering	Other than Rajasthan	Gender-Neutral	17	1	4	1	6	1	4	0	12	0	46
		Female-only (including supernumerary)	5	0	1	0	2	0	1	0	3	0	12
Computer Science and Engineering	Other than Rajasthan	Gender-Neutral	17	1	5	0	7	1	3	0	12	1	47
		Female-only (including supernumerary)	5	1	1	0	1	0	1	0	3	0	12
Electrical Engineering	Other than Rajasthan	Gender-Neutral	18	1	4	0	7	0	3	1	12	1	47
		Female-only (including supernumerary)	5	0	1	0	2	0	1	0	3	0	12
Electronics & Communication Engineering	Other than Rajasthan	Gender-Neutral	18	0	4	1	8	0	3	0	12	1	47
		Female-only (including supernumerary)	4	1	1	0	1	0	1	0	3	0	11
Mechanical Engineering	Other than Rajasthan	Gender-Neutral	18	1	4	1	6	1	2	0	12	0	45
		Female-only (including supernumerary)	5	0	1	0	1	0	1	0	4	0	12
Metallurgical & Materials Engineering	Other than Rajasthan	Gender-Neutral	12	1	2	0	4	0	2	0	8	0	29
		Female-only (including supernumerary)	2	0	1	0	1	0	1	0	2	1	8
Artificial Intelligence and Data Engineering	Other than Rajasthan	Gender-Neutral	7	0	2	0	2	0	1	0	4	0	16
		Female-only (including supernumerary)	1	0	1	0	1	0	0	0	1	0	4
		Total (A)	**171**	**9**	**42**	**3**	**63**	**3**	**32**	**1**	**114**	**6**	**444**

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Assistant Registrar (Academic)

Deputy Registrar (Academic)

Associate Dean (UG)

MNIT Jaipur Seat Matrix for Centralized Counselling for M.Tech./M.Plan: Admission (CCMT Counselling 2025-26)

Annexure- A

Department	Programme	Group	OPEN	OPEN-PWD	EWS	EWS-PWD	SC	SC-PWD	ST	ST-PWD	OBC	OBC-PWD	Total	Quota
Department of Architecture & Planning -(AP)	Urban Planning-(UP)	Group 1	7	1	2	0	3	0	2	0	4	0	19	AI
Department of Architecture & Planning -(AP)	Urban Planning-(UP)	Group 2	3	0	0	0	1	0	0	0	3	0	7	AI
Department of Civil Engineering-(CE)	Environmental Engineering-(EV)	Group 1	6	1	2	0	2	0	1	0	4	0	16	AI
Department of Civil Engineering-(CE)	Structural Engineering-(SU)	Group 1	6	0	2	1	2	0	1	0	4	0	16	AI
Department of Civil Engineering-(CE)	Transportation Engineering-(TE)	Group 1	6	0	2	0	2	1	1	0	4	0	16	AI
Department of Civil Engineering-(CE)	Water Resources Engineering-(WR)	Group 1	6	0	1	0	2	0	2	0	4	1	16	AI
Department of Computer Science & Engineering-(CT)	Computer Science & Information Security-(CQ)	Group 1	10	0	2	0	4	1	2	0	7	0	26	AI
Department of Computer Science & Engineering-(CT)	Computer Science & Engineering-(XG)	Group 1	10	0	2	0	4	0	2	0	7	1	26	AI
Centre for Energy & Environment-(CY)	Renewable Energy-(RE)	Group 1	6	1	2	0	2	0	1	0	4	0	16	AI
Department of Electronics & Communication Engineering-(EC)	Embedded Systems-(EB)	Group 1	7	1	2	0	3	0	2	0	4	0	19	AI
Department of Electronics & Communication Engineering-(EC)	Embedded Systems-(EB)	Group 2	3	0	0	0	1	1	0	0	3	0	8	AI
Department of Electronics & Communication Engineering-(EC)	Electronics & Communication Engineering-(EF)	Group 1	8	0	2	0	3	0	2	1	5	0	21	AI
Department of Electronics & Communication Engineering-(EC)	VLSI Design-(VN)	Group 1	8	1	2	0	3	0	1	0	5	0	20	AI
Department of Electronics & Communication Engineering-(EC)	VLSI Design-(VN)	Group 2	2	0	1	0	1	0	0	0	2	0	6	AI
Department of Electrical Engineering-(EE)	Power Eletronics & Drives-(PD)	Group 1	10	1	2	0	4	0	2	0	7	0	26	AI
Department of Electrical Engineering-(EE)	Power Systems Management-(PN)	Group 1	6	0	2	0	2	0	1	0	4	1	16	AI
Department of Electrical Engineering-(EE)	Power Systems-(PO)	Group 1	8	0	2	0	3	0	2	1	5	0	21	AI
Department of Mechanical Engineering-(ME)	Design Engineering-(DG)	Group 1	8	0	2	0	3	0	1	0	6	1	21	AI
Department of Mechanical Engineering-(ME)	Industrial Engineering-(IG)	Group 1	4	1	1	0	1	0	1	0	3	0	11	AI
Department of Mechanical Engineering-(ME)	Industrial Engineering-(IG)	Group 2	2	0	1	0	1	0	0	0	1	0	5	AI
Department of Mechanical Engineering-(ME)	Thermal Enginering-(TI)	Group 1	9	0	1	0	3	0	2	0	5	0	20	AI
National Centre for Disaster Mitigation and Management-(DM)	Earthquake Engineering-(EE)	Group 1	6	0	2	1	2	0	1	0	4	0	16	AI
Department of Metallurgical and Materials Engineering (MT)	Materials Engineering	Group 1	6	0	2	0	2	0	1	0	4	0	15	AI
Department of Chemical Engineering	Chemical Engineering and Sustainability (CE&S)	Group 1	6	1	1	0	2	0	1	0	4	0	15	AI
Department of Chemical Engineering	Petrochemicals and Polymer Technology (PC&PT)	Group 1	5	1	1	0	2	0	1	0	5	0	15	AI
	Total Seats		158	9	39	2	58	3	30	2	108	4	413	

*Note:- The PwD seats are supernumery

Associate Dean(PG)

Deputy Registrar

Assistant Registrar 21/4/25

PG Section 21/4/25

Annexure-K

MNIT Jaipur Seat Matrix for Centralized Counselling for M.Sc. Admission (CCMN Counselling 2025-26) Annexure B

Department	Programme	Group	OPEN	OPEN-PWD	EWS	EWS-PWD	SC	SC-PWD	ST	ST-PWD	OBC	OBC-PWD	Total	Quota
Department of Che	Chemicstry	Group 1	16	0	4	0	6	1	3	0	10	1	41	AI
Department of Ma	Mathematics	Group 1	16	1	3	1	6	0	3	0	11	0	41	AI
Department of Phu	Physics	Group 1	16	1	4	0	6	0	3	0	10	1	41	AI
	Total Seats		**48**	**2**	**11**	**1**	**18**	**1**	**9**	**0**	**31**	**2**	**123**	

***Note:- The PwD seats are supernumery**

Associate Dean(PG)

Deputy Registrar

Assistant Registrar
21/4/25

21/4/25
PG Section

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

DASA PG Seat Matrix (Academic Year 2025-26)

Institute Code: 202 **Institute Name:** Malaviya National Institute of Technology Jaipur

S. No.	Programmes	Total
1.	Computer Science and Engineering	8
2.	Electronics and Communication Engineering	2
3.	Industrial Engineering	2
4.	M. Planning (Urban Planning)	2
5.	Power Systems	2
6.	Structural Engineering	2
7.	Thermal Engineering	2
8.	Transportation Engineering	2
9.	VLSI Design	2
10.	Master of Business Administration (MBA)	3
	TOTAL	**27**

Annexure-M

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY
Office of Dean Academic
Minutes of Unfair Means Committee Meeting held on 02nd September 2024

The meeting of the Unfair Means Committee was held on 02nd September 2024, at 4:00 PM in NKN-1, First Floor, Prabha Bhawan. The meeting was attended by the following members:

1.	Prof. D. Boolchandani	Dean, Academic
2.	Prof. Lava Bhargava	Chairman, SUGB
3.	Prof. Suja George	Chairman SPGB
4.	Prof. M.M. Sharma	Course Coordinator
5.	Dr. Yogesh Kumar Meena	Associate Dean, PG
6.	Dr. Ram Dayal	Associate Dean, UG

The following agenda items were discussed:

Item No. 1.0 ***Items for Consideration.***

Item No. 1.1 **To review the presentation submitted by the student for the decision taken in the unfair means committee meeting dated 16th May 2024 and review meeting dated 13.06.2024.**

The cases of unfair means were observed in the recently held End-term examinations held from 26th April 2024 to 01st May 2024, and forwarded by the concerned course coordinators/invigilators/flying squads to the Unfair Means Committee.

05 students have submitted applications to review the decisions taken in the unfair means committee meeting dated 16th May 2024. All five students were informed through email & telephone to have a word before the committee members. Out of five students, Mr. Ramavath Nagaraju (2022UEC1647) has again submitted an application to review the decision against him. The following decisions were taken earlier for Mr. Ramavath:

S. No.	Name of the student	Course details	Examination	Decision (Meeting dated 16.05.2024)	Review Decision (Meeting dated 13.06.2024)
1.	Ramavath Nagaraju (2022UEC1647)	22ECT255 Microwave Engineering	IV Semester End-Term Examinations 2023-24	The End-Term Examination of 22ECT255 (Microwave Engineering) stands cancelled. The student will be awarded 'FP' grades in all the registered courses of Even Semester 2023-24.	He was informed through email and also tried to contact through telephone several times, but neither he answered the phone nor contacted the Institute. However, after considering the issue once more, the committee members decided to stick with their initial decision.

The student appeared before the committee and claimed that he did not use his mobile phone to answer any of the questions. Furthermore, upon examination of the answer sheet by the course coordinator, it appeared that no material from the phone was used. Therefore, in accordance with the norms of punishment under clause 1(a), the student is awarded an FP grade in the particular course only.

The meeting was concluded with a vote of thanks to the chair.

(Prof. D. Boolchandani)
Dean Academic

Prof. Lava Bhargava
Chairman, SUGB

(Prof. Suja George)
Chairman, SPGB

(Prof. M.M. Sharma)
Course Coordinator and Head, ECE

(Dr. Yogesh Kumar Meena)
Associate Dean (PG)

(Dr. Ram Dayal) 03/09/24
Associate Dean (UG)

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY

Office of Dean Academic

Minutes of Unfair Means Committee Meetings held on 17th December 2024, 09th January 2025, 16th January 2025 and 19.03.2025

The meetings of the Unfair Means Committee were held on 17th December 2024, at 11:00 AM, 09th January 2025, 16th January 2025, and 19.03.2025 in Prabha Bhawan. The meetings were attended by the following members:

1.	Prof. D. Boolchandani	Dean, Academic
2.	Prof. Lava Bhargava	Chairman SUGB
3.	Prof. Suja George	Chairman SPGB
4.	Dr. Yogesh Kumar Meena	Associate Dean, PG
5.	Dr. Ram Dayal	Associate Dean, UG
6.	Prof. Rajeev Shringi	Head, Department of Architecture and Planning
7.	Prof. Rajendra Kumar Goyal	Head, Department of Metallurgical and Materials Engineering
8.	Dr. Satyanarayana Neeli	Coordinator, Exam. Cell
9.	Dr. Sushant Upadhyaya	Head, Department of Chemical Engineering
10.	Dr. Santosh Choudhary	Head, Department of Mathematics
11.	Dr. Bharat Choudhary	DUGC member, Department of Electronics and Communication Engineering
12.	Dr. Reena Kumari	Course Coordinator DLD, Department of Electronics and Communication Engineering
13.	Dr. Anoop I Shirkol	Invigilator and Assistant Professor, Department of Civil Engineering
14.	Dr. Kuldeep Singh	Convener DUGC, Department of Electronics and Communication Engineering
15.	Dr. Gunjan Soni	Convener DUGC, Department of Mechanical Engineering
16.	Dr. Kalpana Pandit	Convener DUGC, Department of Architecture and Planning
17.	Dr. Deepankar Panda	Assistant Prof., Department of Metallurgical and Materials Engineering
18.	Dr. Krishna Kumar	DUGC Convener, Department of Metallurgical and Materials Engineering
19.	Dr. Swati Sharma	Assistant Prof., Department of Metallurgical and Materials Engineering
20.	Dr. Niraja Saraswat	Assistant Prof., Department of Humanities and Social Sciences
21.	Dr. Sanjay Bhattar	Convener DUGC, Department of Mathematics

The following agenda items were discussed:

Item No. 1.0 **To confirm the minutes of the Unfair Means Committee meeting dated 02nd November 2024.**

The minutes of the Unfair Means Committee meeting dated 02nd November 2024 were confirmed.

Item No. 2.0 **To Note the "Action Taken" on the decisions taken in the Unfair Means Committee meeting dated 27th March 2024.**

The Unfair Means Committee noted the action taken report on the decisions taken on 02nd November 2024.

Item No. 3.0 *Items for Consideration.*

Item No. 3.1 **To discuss the unfair means cases reported in the End-term Examinations 2024-25.**

The unfair means cases reported in the End-term examinations held from 25th November 2024 to 11th December 2024, and forwarded by the concerned course coordinator/invigilator/flying squads to the Unfair Means Committee were discussed. All the students who indulged in unfair means were called before the committee to present their cases. Mr. Anurag (2024UCE1470) and Ms. Ananya Nayak (2024UAR1010) did not report. The committee discussed the cases one by one and the following resolutions/recommendations were taken:

S. No.	Name of the student	Course details	Examination	Decision
1.	Dharmendra Kamniya (2023UCH1526)	22CHT202 Computer Aided Numerical Methods (CANM)	III Semester End-Term Examinations 2024-25	The End-Term Examination of 22CHT202 Computer Aided Numerical Methods (CANM) stands cancelled. The student will be awarded 'FP' grades in this course as it was found that the material has not been used by the candidate.
2.	Anurag (2024UCE1470)	22MAT101 Mathematics-I	I Semester End-Term Examinations 2024-25	The End-Term Examination of 22MAT101 Mathematics-I stands cancelled. The student will be awarded 'FP' grades in this course.
3.	Tarun Choudhary (2020UAR1156)	22CET109 Architecture Structures-I	IX Semester End-Term Examinations 2024-25	The student accepted using the material in his answer sheet. Therefore, the student will be awarded 'FP' grades in all the registered courses of Odd Semester 2024-25.
4.	Ananya Nayak (2024UAR1010)	22CET109 Architecture Structures-I	I Semester End-Term Examinations 2024-25	The matter found in the possession of the student is related to the question paper, and the same was found in the answer sheet also. Therefore, the student will be awarded 'FP' grades in all the registered courses of Odd Semester 2024-25.
5.	Suraj Singh (2022UME1935)	22MET302 Design of Machine Element	V Semester End-Term Examinations 2024-25	The student accepted using the material in his answer sheet. Therefore, the student will be awarded 'FP' grades in all the registered courses of Odd Semester 2024-25.
6.	Ritik Chamoli (2023UCE1261)		III Semester End-Term Examinations 2024-25	The student was found near the examination premises, and therefore, the matter has been referred to the disciplinary Board.
7.	Vaishnavi (2023UEC1295)	22ECT203 Digital Logic Design	III Semester End-Term Examinations 2024-25	The End-Term Examination of 22ECT203 Digital Logic Design stands cancelled. The student will be awarded 'FP' grades in this course.

8.	Kushagra (2023UCH1562)		III Semester End-Term Examinations 2024-25	The student was found near the examination premises, and therefore, the matter has been referred to the disciplinary Board.
9.	Bhavishya Bhandari (2023UCH1862)		III Semester End-Term Examinations 2024-25	The student was found near the examination premises, and therefore, the matter has been referred to the disciplinary Board.

It was decided that the information regarding indulging in unfair means by the student should be communicated to their parents. It was also decided that any such repeat offense by the student would attract severe penalties, which may range up to expulsion (limited period/permanent) of the student from the Institute. Further, the decision of the committee will be communicated to all the students of the Institute.

The meeting was concluded with thanks to the chair.

Prof. D. Boolchandani
Dean, Academic

Prof. Lava Bhargava
Chairman, SUGB

(Prof. Suja George)
Chairman, SPGB

(Yogesh Kumar Meena)
Associate Dean (PG)

(Dr. Ramdayal)
Associate Dean (UG)

मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर
MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY

29 मार्च 2025 को आयोजित अनुचित साधन समिति (अनफेयर मीन्स कमीटी) की बैठक के कार्यवृत्त

Minutes of Unfair Means Committee Meeting held on 19th March 2025

अनुचित साधन समिति की बैठक 19 मार्च 2025 को सांय 4:00 बजे बैठक कक्ष क्रमांक 3, प्रभा भवन, माराप्रौ संस्थान जयपुर में आयोजित की गई। बैठक में निम्नलिखित सदस्यों ने भाग लिया:

The meeting of the Unfair Means Committee was held on 19th March 2025, at 4:00 PM in Meeting Room No.3, Prabha Bhawan MNIT Jaipur. The meeting was attended by the following members:

1.	प्रो. डी. बूलचन्दानी (अधिष्ठाता, शैक्षणिक) Prof. D. Boolchandani (Dean, Academics)
2.	प्रो. लव भार्गव (सभापति, सीनेट स्नातक बोर्ड (एसयूजीबी)) Prof. Lava Bhargava (Chairman, SUGB)
3.	प्रो. सुजा जॉर्ज (सभापति, सीनेट स्नातकोत्तर बोर्ड (एसपीजीबी)) Prof. Suja George (Chairman, SPGB)
4.	डॉ. योगेश कुमार मीणा (सह अधिष्ठाता, स्नातकोत्तर) Dr. Yogesh Kumar Meena (Associate Dean PG)
5.	डॉ. राम दयाल (सह अधिष्ठाता, स्नातक) Dr. Ram Dayal (Associate Dean UG)
6.	डॉ. कुलदीप सिंह (संयोजक, डीयूजीसी) Dr. Kuldeep Singh (Convener, DUGC)
7.	डॉ. संजय भट्टर (संयोजक, डीयूजीसी) Dr. Sanjay Bhatter (Convener, DUGC)
8.	डॉ. सुशांत उपाध्याय (विभागाध्यक्ष, रासायनिक अभियांत्रिकी विभाग) Dr. Sushant Upadhyaya (HoD, Chemical Engineering Department)

The following agenda items were discussed:

Item No. 1.0 ***Items for Consideration.***

Item No. 1.1 **To discuss the unfair means cases reported in the Mid-term Examinations 2024-25 from 21-02-2025 to 27-02-2025.**

Cases of unfair means were observed in recently held Mid-term examinations 2024-25 from 21st February 2025 to 27th February 2025. The cases were reported during Mid-term examinations pertaining to the Department of Electrical Engineering and the Department of Civil Engineering. The concerned course coordinator/invigilator/flying squads reported the cases to the respective DUGCs. The DUGC has forwarded the cases to the Unfair Means Committee:

S. No.	Name of the student	Course details	Examination	Decision
1.	Akash Pathak 2024UEE1884	22EET152 Network Theory	II Semester Mid-Term Examinations 2024-25	'FP' grade in Course 22EET152 Network Theory.
2.	Chanchal Soni 2023UCE1018	22CET251 Design of RCC Structures	IV Semester Mid-Term Examinations 2024-25	'FP' grade in Course 22CET251 Design of RCC Structures.

The student appeared before the committee and claimed that he did not use his mobile phone to answer any of the questions. Furthermore, upon examination of the answer sheet by the course coordinator, it appeared that no material from the phone was used. Therefore, in accordance with the norms of punishment under clause 1(a), the student is awarded an FP grade in the particular course only.

The meeting was concluded with a vote of thanks to the chair.

(डी. बूलचन्दानी)
अधिष्ठाता, शैक्षणिक
(D. Boolchandani)
Dean Academic

(लव भार्गव)
सभापति, सीनेट स्नातक बोर्ड (एसयूजीबी)
(Lava Bhargava)
Chairman SUGB

(सुजा जॉर्ज)
सभापति, सीनेट स्नातकोत्तर बोर्ड (एसपीजीबी)
(Suja George)
Chairman SPGB

योगेश कुमार मीणा
सह अधिष्ठाता स्नातकोत्तर
(Yogesh Kumar Meena)
Associate Dean PG

राम दयाल
सह अधिष्ठाता, स्नातक
(Ram Dayal)
Associate Dean UG

मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर
MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY

13 मई 2025 को आयोजित अनुचित साधन समिति (अनफेयर मीन्स कमीटी) की बैठक के कार्यवृत्त
Minutes of Unfair Means Committee Meeting held on 13th May 2025

अनुचित साधन समिति की बैठक 13 मई 2025 को सांय 3:30 बजे एनकेएन–1, प्रभा भवन, माराप्रौ संस्थान जयपुर में आयोजित की गई। बैठक में निम्नलिखित सदस्यों ने भाग लिया:
The meeting of the Unfair Means Committee was held on 13th May 2025, at 3:30 PM in Meeting Room No.3, Prabha Bhawan MNIT Jaipur. The meeting was attended by the following members:

1.	प्रो. डी. बूलचन्दानी (अधिष्ठाता, शैक्षणिक) Prof. D. Boolchandani (Dean, Academics)
2.	प्रो. लव भार्गव (सभापति, सीनेट स्नातक बोर्ड (एसयूजीबी)) Prof. Lava Bhargava (Chairman, SUGB)
3.	प्रो. सुजा जॉर्ज (सभापति, सीनेट स्नातकोत्तर बोर्ड (एसपीजीबी)) Prof. Suja George (Chairman, SPGB)
4.	डॉ. योगेश कुमार मीणा (सह अधिष्ठाता, स्नातकोत्तर) Dr. Yogesh Kumar Meena (Associate Dean PG)
5.	डॉ. राम दयाल (सह अधिष्ठाता, स्नातक) Dr. Ram Dayal (Associate Dean UG)
6.	प्रो. आर. सी. गुप्ता (पाठ्यक्रम समन्वयक) Prof. R.C. Gupta (Course Coordinator)
7.	डॉ. नमिता मित्तल (विभागाध्यक्ष, संगणक विज्ञान एवं अभियान्त्रिकी विभाग) Dr. Namita Mittal (Head, Department of Computer Science and Engineering)
8.	डॉ. तरूण वर्मा (पाठ्यक्रम समन्वयक) Dr. Tarun Verma (Course Coordinator)
9.	डॉ. ईला शर्मा (निरीक्षक) Dr. Ila Sharma (Invigilator)
10.	डॉ. पवन रेखा (पाठ्यक्रम समन्वयक) Dr. Pawan Rekha (Course Coordinator)
11.	डॉ. अंकित (निरीक्षक) Dr. Ankit (Invigilator)
12.	डॉ. अमित कुमार (उडन दस्ता सदस्य) Dr. Amit Kumar (Flying Squad member)
13.	डॉ. भरत चौधरी (निरीक्षक) Dr. Bharat Chaudhary (Invigilator)
14.	डॉ. दिनेश कुमार राठौर (निरीक्षक) Dr. Dinesh Kumar Rathore (Invigilator)
15.	डॉ. कुलदीप सिंह (संयोजक, डीयूजीसी) Dr. Kuldeep Singh (Convener, DUGC)
16.	डॉ. एस.जे. नन्दा (पाठ्यक्रम समन्वयक) Dr. S.J. Nanda (Course Coordinator)
17.	डॉ. बन्दी सुरेश (निरीक्षक) Dr. Bandi Suresh (Invigilator)

The following agenda items were discussed:

Item No. 1.0 ***Items for Consideration.***

Item No. 1.1 **To discuss the unfair means cases reported in the End-term Examinations 2024-25 from 28.04.2025 to 14.05.2025.**

Cases of unfair means were observed in recently held end-term examinations, even semester of academic year 2024-25, from 28th April 2025 to 14th May 2025. The cases were reported during End-term examinations pertaining to the Department of Electronics and Communication Engineering, Department of Computer Science and Engineering, Department of Mechanical Engineering and the Department of Civil Engineering. The concerned course coordinator/invigilator/flying squads reported the cases to the respective DUGCs. The DUGC forwarded the cases to the Unfair Means Committee for consideration:

S. No.	Name of the student	Course details	Examination	Decision
1.	Korra Santosh 2022UEC1643	22BMT922 Management Principle for Engineers	VI Semester End-Term Examinations Even Semester 2024-25	'FP' grade in Course 22BMT922 Management Principle for Engineers.
2.	Happy Shivran 2022UEC1934	22ECT351 Neural Network and Fuzzy Logic	VI Semester End-Term Examinations Even Semester 2024-25	'FP' grade in Course 22ECT351 Neural Network and Fuzzy Logic.
3.	Anvi Buriya 2024UCE1515	22CYT101 Engineering Chemistry	II Semester End-Term Examinations Even Semester 2024-25	'FP' grade in Course 22CYT101 Engineering Chemistry.
4.	Vedant Yuvraj Desale 2023UCP1584	22CST254 Machine Learning	IV Semester End-Term Examinations Even Semester 2024-25	'FP' grade in Course 22CST254 Machine Learning.
5.	A Gowtham Nayak 2023UEC1055	22ECT251 Analog CMOSIC	IV Semester End-Term Examinations Even Semester 2024-25	'FP' grade in Course 22ECT251 Analog CMOSIC.
6.	Arpit Maan 2024UEC1670	22ECT152 Signals & Systems	II Semester End-Term Examinations Even Semester 2024-25	'FP' grade in Course 22ECT152 Signals & Systems.
7.	Rahul 2023UCE1087	22CET251 Design of RCC	IV Semester End-Term Examinations Even Semester 2024-25	'FP' grade in Course 22CET251 Design of RCC.
8.	Aditi Bajpai 2022UME1835	22MET930 Mechanical Vibration and Control	VI Semester End-Term Examinations Even Semester 2024-25	'FP' grade in Course 22MET930 Mechanical Vibration and Control.

The meeting was concluded with a vote of thanks to the chair.

(डी. बूलचन्दानी)
अधिष्ठाता, शैक्षणिक
(D. Boolchandani)
Dean Academic

(लव भार्गव)
सभापति, सीनेट स्नातक बोर्ड (एसयूजीबी)
(Lava Bhargava)
Chairman SUGB

(सुजा जॉर्ज)
सभापति, सीनेट स्नातकोत्तर बोर्ड (एसपीजीबी)
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योगेश कुमार मीणा
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राम दयाल
सह अधिष्ठाता, स्नातक
(Ram Dayal)
Associate Dean UG

मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर
MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

02 अप्रेल 2025 को आयोजित सीनेट स्नातकोत्तर बोर्ड (एसपीजीबी) की 69वीं बैठक के कार्यवृत्त
MINUTES OF THE 69th MEETING OF THE SPGB HELD ON 02nd APRIL 2025

सीनेट स्नातकोत्तर बोर्ड (एसपीजीबी) की 69वीं बैठक 02 अप्रेल 2025 को सांय: 04:00 बजे एनकेएन–1, प्रभा भवन, मा.रा.प्रौ.सं. में आयोजित की गई थी।
The 69th meeting of the SPGB was held on 02nd April 2025 at 04:00 PM in the meeting room no.3 (Old Senate Room), Prabha Bhawan, MNIT Jaipur.

निम्नलिखित एजेंडा मदों पर चर्चा की गई, और सिफारिशें इस प्रकार हैं:
The following agenda items were discussed, and the recommendations are as follows:

Item No. 69-1.0	**To confirm the minutes of the 67th and 68th (special) meetings of the SPGB held on 07.02.2025 and 07.03.2025 respectively.** The minutes of the 67th and 68th (special) meetings of the SPGB held on 07.02.2025 and 07.03.2025 were confirmed.
Item No. 69-2.0	**To note the "Action Taken" on the decisions taken in the 67th and 68th (special) meetings of the SPGB.** The SPGB noted the action taken report on the decisions taken in the 67th and 68th (special) meetings.
Item No. 69-3.0	**Items for Consideration.**
Item No. 69-3.1	**To consider the proposal of the Centre for Energy and Environment to float two new programme electives "Thermal Management in Electric Vehicles (3-0-0)" and "Sustainability Studies (3-0-0).** After deliberations, the SPGB decided to return the proposal to the Centre for Energy and Environment, requesting revisions to the course outcomes, lecture plan, and textbooks/references. The revised proposal should be resubmitted in the desired format for discussion at the next SPGB meeting.
Item No. 69-3.2	**To consider the list of courses identified as RM II by the Department of ECE to be offered as open electives to Ph.D. students of the Institute.** After deliberation, the SPGB recommended to the Senate for the approval of the courses offered by the Department of ECE to be included as open elective RM II for Ph.D. students.
Item No. 69-3.3	**To consider the scheme and syllabus of two new M. Tech. programs, namely Chemical Engineering and Sustainability (CE&S) and Petrochemicals and Polymer Technology (PC&PT).** After deliberation, the SPGB recommended the scheme and syllabus of the two new M.Tech. programs, CE&S and PC&PT, to the Senate for approval, with minor modifications in the submission format.

The meeting ended with a vote of thanks to the Chair.

सभापति, सीनेट स्नातकोत्तर बोर्ड
Chairman SPGB

सह अधिष्ठाता (स्नातकोत्तर)
Associate Dean (PG)

मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर
MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

15 मई 2025 को आयोजित सीनेट स्नातकोत्तर बोर्ड (एसपीजीबी) की 70वीं बैठक के कार्यवृत्त
MINUTES OF THE 70th MEETING OF THE SPGB HELD ON 15th May 2025

सीनेट स्नातकोत्तर बोर्ड (एसपीजीबी) की 70वीं बैठक 15 मई 2025 को प्रातः 11:00 बजे कक्ष सं.3 (पुराना सीनेट कक्ष), प्रभा भवन, मा.रा.प्रौ.सं. में आयोजित की गई थी।

The 70th meeting of the SPGB was held on 15th May 2025 at 11:00 AM in the meeting room no.3 (Old Senate Room), Prabha Bhawan, MNIT Jaipur.

निम्नलिखित एजेंडा मदों पर चर्चा की गई, और सिफारिशें इस प्रकार हैं:

The following agenda items were discussed, and the recommendations are as follows:

Item No. 70-1.0	**To confirm the minutes of the 69th meeting of the SPGB held on 02.04.2025.** The minutes of the 69th meeting of the SPGB held on 02.04.2025 was confirmed.
Item No. 70-2.0	**To note the "Action Taken" on the decisions taken in the 69th meeting of the SPGB.** The SPGB noted the action taken report on the decisions taken in the 69th meeting.
Item No. 70-3.0	**Items for Consideration.**
Item No. 70-3.1	**To consider the mercy petition submitted by Ph.D. student Mr. Anand Kumar Jain (2023RCP9026), under the supervision of Dr. Neeta Nain, requesting permission to appear for the comprehensive examination and continue in the Ph.D. program.**

SPGB recommended the mercy request of the following student:

S. No.	Name & ID	Recommendation & Justification of DPGC, if any	Recommendation of SPGB	Justification of SPGB
1.	Mr. Anand Kumar Jain (2023RCP9026)	Recommended 1. Mr. Anand Kumar Jain (2023RCP9026) was admitted under the PWD category. 2. He completed his coursework with a 7.80 CGPA. 3. He has published 4 papers in Scopus-indexed conferences & 1 Journal paper is under review. 4. He has clearly defined his problem and is ready to take the comprehensive examination. 5. The delay in conducting the comprehensive examination was due to personal reasons of the supervisor, and due to the oversight of the rule position by the student. 6. Supervisor and DREC members have recommended the mercy	Recommended	In view of the student's satisfactory academic progress, and recognizing that the delay was primarily due to the supervisor's personal exigencies (health and family issues) as well as an oversight of the relevant rules and timelines by both the supervisor and the student, the SPGB has recommended that the mercy petition be forwarded to the Chairman of the Senate for consideration. The recommendation seeks permission for the student to appear for the comprehensive examination and continue in the Ph.D. program. Further, the SPGB has recommended that the student be permitted to complete the comprehensive examination within one month from the date of issuance of the order

			appeal.		accordingly.

Item No. 70-3.2	**To consider the proposal of the Centre for Energy and Environment to float two new programme electives "Thermal Management in Electric Vehicles (3-0-0)" and "Sustainability Studies (3-0-0).** The SPGB recommended to the Senate the proposal from the Centre for Energy and Environment to introduce two new programme electives: 'Thermal Management in Electric Vehicles (3-0-0)' and 'Sustainability Studies (3-0-0),' for approval.
Item No. 70-4.0	**Items for Reporting**
Item No 70-4.1	To note the list of PG students converted from Full-time to Part-time. **Noted**
Item No. 70-4.2	To note the list of PG students permitted for Internship work in other institutes. Noted.
Item No. 70-4.3	To note the list of Ph.D. students converted from Full-time to Part-time. Noted.
Item No. 70-4.4	To note list of Ph.D. students whose supervisors (Internal/External) are added. Noted.
Item No. 70-4.5	To note the list of Ph.D. students permitted for research work in other institutes. Noted.
Item No. 70-4.6	To note the list of the Ph.D. students permitted for Semester Withdrawal. Noted.
Item No. 70-4.7	To note the list of the Ph.D. students of change of supervisor. Noted.

The meeting ended with a vote of thanks to the Chair.

सह अधिष्ठाता (स्नातकोत्त
Associate Dean (PG)

सभापति, सीनेट स्नातकोत्तर बोर्ड
Chairman SPGB

15.05.2025 को आयोजित 70वीं एसपीजीबी बैठक में निम्न सदस्यों ने भाग लिया:
Following members attended the meeting 70th SPGB Meeting held on 15.05.2025:

S. No.	Name of Faculty	Designation
1.	Prof. Suja George	Chairman, SPGB
2.	Prof. Lava Bhargava	Chairman, SUGB
3.	Prof. D. Boolchandani	Dean Academic
4.	Dr. Yogesh Meena	Associate Dean, PG
5.	Dr. Ram Dayal	Associate Dean, UG
6.	Dr. Gireendra Kumar	Convener DPGC, Architecture and Planning
7.	Dr. Amartya Chowdhury	Convener DPGC, Centre For Energy and Environment
8.	Dr. Makkhan Lal Meena	Convener DPGC, Centre For Rural Development
9.	Dr. Sumit Kumar Sonkar	Convener DPGC, Chemistry
10.	Dr. Neeli Satyanarayana	Convener DPGC, Electrical Engineering
11.	Prof. Vibhuti Singh Shekhawat	Convener DPGC, Humanities and Social Science

निम्न सदस्य बैठक में शामिल नहीं हो सके:
The following members could not attend the meeting:

1.	Prof. Dilip Sharma	Ex-Chairman, SPGB
2.	Prof. R. K. Vyas	Nominee, Chairman Senate
3.	Dr. Satyendra Singh Chouhan	Convener DPGC, Artificial Intelligence and Data Engineering
4.	Dr. Rajeev Kumar Dohare	Representative Convener DPGC, Chemical Engineering
5.	Prof. Gunwant Sharma	Representative, Convener DPGC, Civil Engineering
6.	Dr. Pilli Emmanuel Shubhakar	Convener DPGC, Computer Science and Engineering
7.	Dr. Ritu Sharma	Convener DPGC, Electronics and Communication Engineering
8.	Dr. Ritu Agarwal	Convener DPGC, Mathematics
9.	Dr. Reeta Singh	Convener DPGC, Management Studies
10.	Dr. Bhagwati Sharma	Convener DPGC, Material Research Center
11.	Dr. Amar Patnaik	Convener DPGC, Mechanical Engineering
12.	Dr. Jyotirmaya Kar	Convener DPGC, Metallurgical and Materials Engineering
13.	Prof. M. K. Shrimali	Convener DPGC, National Centre For Disaster Mitigation and Management
14.	Dr. Manoj Kumar	Convener DPGC, Physics
15.	Shilpa Priyadarshni Das (2022PWC5409)	Student nominee
16.	Manisha Prajapat (2022REC9501)	Student nominee

मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर
MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

04 जुलाई 2025 को आयोजित सीनेट स्नातकोत्तर बोर्ड (एसपीजीबी) की 71वीं बैठक के कार्यवृत्त
MINUTES OF THE 71st MEETING OF THE SPGB HELD ON 04th July 2025

सीनेट स्नातकोत्तर बोर्ड (एसपीजीबी) की 71वीं बैठक 04 जुलाई 2025 को सायं 04:00 बजे बैठक कक्ष स.3 (पुराना सीनेट कक्ष), प्रभा भवन, मा.रा.प्रौ.सं. में आयोजित की गई थी।
The 71st meeting of the SPGB was held on 04th July 2025 at 04:00 PM in the meeting room no.3 (Old Senate Room), Prabha Bhawan, MNIT Jaipur.

निम्नलिखित एजेंडा मदों पर चर्चा की गई, और सिफारिशें इस प्रकार हैं:
The following agenda items were discussed, and the recommendations are as follows:

Item No. 71-1.0	**To confirm the minutes of the 70th meeting of the SPGB held on 15.05.2025.** The minutes of the 70th meeting of the SPGB held on 15.05.2025 was confirmed.
Item No. 71-2.0	**To note the "Action Taken" on the decisions taken in the 70th meeting of the SPGB.** The SPGB noted the action taken report on the decisions taken in the 70th meeting.
Item No. 71-3.0	**Items for Consideration.**
Item No. 71-3.1	**To consider the mercy appeal submitted by Mr. Rajesh Saini (2024PES5450) for continuation of M.Tech. (Power Systems) programme.** After deliberation, the SPGB referred Mr. Rajesh Saini's mercy appeal (2024PES5450) back to the department for appropriate justification. Additionally, the SPGB authorized the Chairman SPGB to take a decision on the appeal for further recommendation to the Senate.
Item No. 71-3.2	**To consider the proposal submitted by the Department of Chemical Engineering regarding the M.Tech. admissions under the Full-Time Self-Financed (non-GATE) category.** After deliberation, the SPGB constituted a committee of the following faculty members to submit their recommendations regarding M.Tech. admissions under the Full-Time Self-Financed (non-GATE) category: 1. Prof. Kailash Singh Convener 2. Dr. Amar Patnaik 3. Dr. Reetu Sharma The committee is requested to submit its recommendation before the next SPGB meeting.
Item No. 71-3.3	**To consider the list of M.Tech. students for termination of enrolment who scored a CGPA less than 5.5 in academic year 2024-25.** After deliberation, the SPGB allowed termination of the M.Tech. students who scored a CGPA less than 5.5 in academic year 2024-25.

S. No.	Student ID	Student Name	Termination of enrolment due to the following PG Rules and Regulations

1.	2024PCV5182	Tamalika Das	As per PG Rules and Regulations, clause 13.2 (b) **Minimum Credits/ CGPA Requirements for PG Programs.**
2.	2024PAR5232	Shahbaz Ahmad	
3.	2024PMA5394	Ankit Kumar Mundotiya	

Item No. 71-3.4 **To consider mercy request of the student Ankit Kumar Mundotiya (2024PMA5394) submitted by the Department of Mathematics to re-admission to M.Sc. Mathematics programme.**

SPGB recommended the mercy request of the following student:

S. No.	Name & ID	Justification and recommendations of DPGC, if any	Justification and Recommendation of SPGB
1.	Ankit Kumar Mundotiya (2024PMA5394) CPGA 5.24	Mr. Ankit Kumar Mundotiya was unable to perform due to his medical conditions, as stated in his application. He has been regular in the classes. Reaching the minimum CGPA requirement to proceed in the next semesters is not realistically achievable if permitted to continue in the second semester. Mr. Ankit could thus be permitted to re-register during the upcoming year 2025-26. **DPGC recommended re-registration in the academic year 2025-26.**	Due to his medical conditions, the SPGB recommended that Mr. Ankit Kumar Mundotiya be given an opportunity to re-register in 1st Semester and repeat all the courses.

Item No. 71-3.5 **To consider the proposal submitted by the Centre for Energy and Environment to increase inake in M.Tech. Renewable Energy from 15 to 25.**

After deliberation, the SPGB deferred the proposal.

Item No. 71-3.6 **To consider the cases of Ph.D. students for termination from the Institute roles due to absence without authorized leave.**

After deliberation, the SPGB recommended the cases of Ph.D. students for termination from the Institute roles due to absence without authorized leave.

S. No.	Student Id	Student Name	Remarks	Rule position
1	2021REC9050	Sujeet Kumar Gupta	Email sent to the Department on 15-01-2025, but no communication received from the department till date	Rule 11.7 of PG RR 2024 (Absence without Authorized Leave)
2	2024RME9103	Vaibhav Gupta	Email reg. recovery of institute assistantship sent to the student on 16-01-2025 and reminder email sent on 23-01-2025 but no communication received from the student till date	

	3	2024RME9107	Kashif Saifi	As per reply received from the DPGC, the student has not reported nor applied for any type of leave since January 1st, 2025.	

Item No. 71-3.7 **To consider the list of Ph.D. students for termination of enrolment who scored a CGPA less than 7.0 in academic year 2024-25.**

After deliberation, the SPGB recommended the cases of Ph.D. students for termination of enrolment who scored a CGPA less than 7.0 in academic year 2024-25.

S. No.	Student Id	Student Name	Rule position
1.	2024REE9065	Kuldeep Saini	Rule 14.7 of PG RR 2024 (Minimum Academic Performance for Semester Promotion in PhD Program)
2.	2024REC9508	Kushagra Sharma	

Item No. 71-3.8 **To consider the mercy request for a semester extension of Ph.D. registration, submitted by Mr. Arvind Kumar Thakur (2018RME9040).**

Mr. Arvind Kumar Thakur (2018RME9040) is a full-time Ph.D. scholar registered under the supervision of Dr. Dinesh Kumar. He joined the Ph.D. program on 23rd July 2018, and successfully completed his comprehensive examination on 31st December 2019. He has achieved all his research objectives and is currently in the thesis writing stage, having published two research papers in SCI-indexed journals. However, due to a change in his research topic post-comprehensive examination and unavoidable family emergencies, including his wife's miscarriage and a bone fracture suffered by a family member for whom he was the sole caregiver, he could not complete the thesis within the originally planned timeline. As a result, he has requested a mercy extension of one semester to allow him to register for 15th semester (Odd Semester of 2024-25).

The DPGC reviewed the progress of Mr. Arvind Kumar Thakur and considered the reasons for the delay. Taking into account the medical emergencies and associated responsibilities, the DPGC finds the request reasonable and recommends approval of a one semester mercy extension for Mr. Arvind Kumar Thakur (2018RME9040), i.e., permission to register in the 15th semester (Odd Semester of 2025-26) under the **PG Rules & Regulation Clause 19.1 (ii) "extension in the duration of the academic program beyond the maximum permissible duration".**

The SPGB review the mercy request of Mr. Arvind Kumar Thakur (2018RME9040) due to a change in his research topic post-comprehensive examination and unavoidable family emergencies, including his wife's miscarriage and a bone fracture suffered by a family member for whom he was the sole caregiver, he could not complete the thesis within the originally planned timeline.

After a detailed deliberation, the SPGB recommended the mercy request for a semester extension of Ph.D. registration of Mr. Arvind Kumar Thakur and submitted it for consideration to the Senate.

Item No. 71-3.9 **To consider the matter regarding the mercy application of Ph.D. scholar Mr. Kushagra Sharma (2024REC9508), Department of Electronics and Communications.**

After deliberation, SPGB recommended the mercy request of the following student:

S. No.	Name & ID	Justification and recommendation of DPGC, if any	Recommendation of SPGB
1.	Kushagra Sharma (2024REC9508)	Mr. Kushagra Sharma (2024REC9508) was admitted to the Ph.D. program in the Department of Electronics and Communication Engineering and he scored a CGPA of 6.20 in the first semester. **Mr. Kushagra Sharma failed to give sufficient justification for not performing well in the subject. Therefore, the DPGC does not recommend the case.**	Not recommended

Item No. 71-3.10 **To consider the matter regarding the mercy application of Ph.D. scholar Mr. Kuldeep Saini (2024REE9065) in the Department of Electrical Engineering.**

After deliberation, SPGB recommended the mercy request of the following student:

S. No.	Name & ID	Justification and recommendations of DPGC, if any	Justification and Recommendation of SPGB
1.	Kuldeep Saini (2024REE9065) CGPA 6.73	Mr. Kuldeep Saini (2024REE9065) was admitted in the Ph.D. program in the department of Electrical Engineering during Odd Semester 2024-25 (July 2024). In his first semester he took two courses (total of 05 credits) and obtained a CGPA of 8.00 and in his second semester he again took two courses (total of 06 credits) and secured a CGPA of 6.73 after second semester, due to sudden death of his family members and serious health related challenges during examination period. **The DPGC, considering the facts, recommended his application to allow him to re-register in the Ph.D. program.**	Due to the sudden death of Mr. Kuldeep Saini's family members and serious health-related challenges during the examination period, the SPGB recommended that Mr. Kuldeep Saini (2024REE9065) be given an opportunity to re-register in the 1st Semester and repeat all the courses.

Item No. 71-3.11 **Proposal for an Interdisciplinary Academic Structure for PG Programmes.**

After deliberation, the SPGB requests to submit a realistic programme and modalities from the committee (constituted 64th SPGB meeting under Item No. 64-3.11) regarding the modalities for executing the Interdisciplinary Academic Structure for PG programmes.

The committee is requested to submit it before the next SPGB meeting.

Item No. 71-3.12	**To consider the Mercy Petition of Ph. D. Student Mr. Anand Kumar Jain (2023RCP9026) regarding the comprehensive examination.** As per the earlier decision of the 70th SPGB meeting under Item No. 70-3.1, wherein it is mentioned that the delay was primarily due to the supervisor's personal exigencies (health and family issues) as well as an oversight of the relevant rules and timelines by both the supervisor and the student, the SPGB has recommended that the mercy petition be forwarded to the Chairman Senate for consideration. The recommendation seeks permission for the students to appear for the comprehensive examination and continue to Ph.D. Programme. Further, SPGB has recommended that the student be permitted to complete the comprehensive examination within one month from the date of issuance of the order, accordingly. As per the direction, the student has been provisionally allowed to appear in the comprehensive examination. The comprehensive examinations and State of Art Seminar were conducted on dated 27th May 2025 and 28th May 2025 respectively, and the DREC recommended the candidacy of Mr. Anand Kumar Jain, The SPGB has recommended that the mercy petition be forwarded to the Senate for consideration and approval.
Item No. 71-4.0	**Items for Reporting**
Item No 71-4.1	To note the list of Ph.D. students converted from Full-time to Part-time. Noted.
Item No. 71-4.2	To note list of Ph.D. students whose supervisors (Internal/External) are added. Noted.
Item No. 71-4.3	To note the list of Ph.D. students permitted for research work in other institutes Noted.
Item No. 71-4.4	To note the list of the Ph.D. students permitted for Semester Withdrawal. Noted.
Item No. 71-4.5	To note the list of the Ph.D. students of change of supervisor. Noted.
Item No. 71-4.6	To note the list of PG students converted from Full-time to Part-time. Noted.
Item No. 71-4.7	To note the list of PG. students permitted for internship work in other institutes. Noted

The meeting ended with a vote of thanks to the Chair.

सह अधिष्ठाता (स्नातकोत्तर)
Associate Dean (PG)

समापति, सीनेट स्नातकोत्तर बोर्ड
Chairman SPGB

04.07.2025 को आयोजित 71वीं एसपीजीबी बैठक में निम्न सदस्यों ने भाग लिया:
The following members attended the 71st SPGB Meeting held on 04.07.2025:

S. No.	Name of Faculty	Designation
1.	Prof. Suja George	Chairman, SPGB
2.	Prof. D. Boolchandani	Dean Academic
3.	Prof. R. K. Vyas	Nominee, Chairman Senate
4.	Dr. Yogesh Meena	Associate Dean, PG
5.	Dr. Ram Dayal	Associate Dean, UG
6.	Dr. Gireendra Kumar	Convener DPGC, Architecture and Planning
7.	Dr. Amartya Chowdhury	Convener DPGC, Centre For Energy and Environment
8.	Prof. Kailash Singh	Convener DPGC, Chemical Engineering
9.	Dr. Arun Gaur	Convener DPGC, Civil Engineering
10.	Prof. Vijay Laxmi	Convener DPGC, Computer Science and Engineering
11.	Dr. Neeli Satyanarayana	Convener DPGC, Electrical Engineering
12.	Dr. Ritu Sharma	Convener DPGC, Electronics and Communication Engineering
13.	Prof. Vibhuti Singh Shekhawat	Convener DPGC, Humanities and Social Science
14.	Dr. Reeta Singh	Convener DPGC, Management Studies
15.	Dr. Bhagwati Sharma	Convener DPGC, Material Research Center
16.	Dr. Om Suthar	Convener DPGC, Mathematics
17.	Dr. Amar Patnaik	Convener DPGC, Mechanical Engineering
18.	Dr. Manoj Kumar	Convener DPGC, Physics

निम्न सदस्य बैठक में शामिल नहीं हो सके:
The following members could not attend the meeting:

1.	Prof. Lava Bhargava	Chairman, SUGB
2.	Prof. Dilip Sharma	Ex-Chairman, SPGB
3.	Dr. Satyendra Singh Chouhan	Convener DPGC, Artificial Intelligence and Data Engineering
4.	Dr. Makkhan Lal Meena	Convener DPGC, Centre For Rural Development
5.	Dr. Sumit Kumar Sonkar	Convener DPGC, Chemistry
6.	Dr. Jyotirmaya Kar	Convener DPGC, Metallurgical and Materials Engineering
7.	Prof. M. K. Shrimali	Convener DPGC, National Centre For Disaster Mitigation and Management
8.	Shilpa Priyadarshni Das (2022PWC5409)	Student nominee
9.	Manisha Prajapat (2022REC9501)	Student nominee

मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

MINUTES OF THE 48th MEETING OF SUGB HELD ON 09th APRIL 2025

48th Meeting of SUGB held on 09th April 2025 at 4:00 PM in the meeting room no.3 (Old Senate Room), Prabha Bhawan MNIT Jaipur.

The following agenda items were discussed, and the recommendations are as follows:

Item No. 48-1.0	**To confirm the minutes of the 47th meeting of SUGB.** The minutes were confirmed.
Item No. 48-2.0	**To Note the "Action Taken" on the decisions taken in the 47th meeting of SUGB.** Action taken on the decision made was noted
Item No. 48-3.0	**Items for Consideration.**
Item No. 48-3.1	**To consider the matter regarding Inactive UG Students who were not registered/absent for 1 or 2 semesters and more than 2 semesters.** SUGB recommended terminating the students who had been absent or not registered for more than 2 semesters as per existing regulations. Further, these students may apply for a mercy plea against termination as per UG regulation clause 14.1.
Item No. 48-3.2	**To consider the matter of B.Tech./B.Arch. final year students who have not registered the course Discipline/regular courses.** SUGB, after detailed deliberation, recommended to register the students with a penalty of Rs.10,000/- as per the minutes of the 57th Senate meeting, item no.57-1.4. At the same time, SUGB advised all the DUGC's to sensitize the program advisers to be careful at the time of registration to avoid such errors.
Item No. 48-3.3	**To consider the matter regarding pending UG grades like "opted/I", on MNIT ERP.** After detailed deliberation, SUGB proposed the following points regarding pending grades for the students who have withdrawn from the Institute. 1. All the pending grades corresponding to the Semester in which the student has withdrawn should be updated to W. 2. Any pending grade prior to the withdrawn semester must be furnished by the department through the respective course coordinators. Regarding I grades, they may be changed to FP as per the regulations.
Item No. 48-3.4	**To consider the recommendations of the committee constituted to decide the implementation of the modalities to permit students for internship.**

	SUGB advised the committee to make a detailed presentation in the next SUGB/SPGB before forwarding it to the Senate.
Item No. 48-3.5	**To consider the Common Framework and Guidelines for Audit Courses.** SUGB, after deliberation, recommended the proposed guidelines for Audit Courses for approval of the Senate.
Item No. 48-3.6	**To consider the proposal of Implementation of Exit Feedback.** SUGB, after deliberation, proposed to constitute a committee of the following faculty members to include the necessary comments received from the departments and give its recommendations for consideration in the upcoming SUGB: 1. Prof. Incharge, Training and Placement - Chairman 2. Associate Dean UG - Convener 3. Prof. Vinit Sahula - Member 4. Dr. Oyes Midda - Member
Item No. 48-3.7	**To consider the mercy request for unfair means cases.** The recommendations of SUGB for the mercy request received from the Department of Mechanical Engineering and the Department of Architecture and Planning are as follows:

S. No.	Student Name	Department Recommendation	SUGB recommendations
1.	Suraj Singh 2022UME1935 Mechanical Engineering	The DUGC was of the opinion that the mercy plea of Mr Suraj Singh (2022UME1935) should be considered, and the penalty may kindly be given as per the newly revised rules for the use of unfair means.	SUGB recommended and forwarded the request for consideration of the Chairman Senate.
2.	Tarun Choudhary 2020UAR1156 Architecture and Planning	The DUGC was of the opinion that the mercy plea of Mr Tarun Chaudhari (2020UAR1156) should be considered and the penalty may kindly be given as per newly revised rules for the use of unfair means.	SUGB recommended and forwarded the request for consideration of the Chairman Senate.
3.	Ananya Nayak 2024UAR1010 Architecture and Planning	The DUGC was of the opinion that the mercy plea of Ms Ananya Nayak (2024UAR1010) should be considered and the penalty may kindly be given as per newly revised rules for the use of unfair means.	SUGB recommended and forwarded the request for consideration of the Chairman Senate.

Item No. 48-4.0	**Items for Reporting**
Item No. 48-4.1	**To report the list of UG students permitted for internship during the Academic Year 2024-25 (Even Semester).** Noted
Item No. 48-5.0	**Table Agenda**
Item No. 48-5.1	**To consider the proposal submitted by the Department of Civil Engineering to run Program Electives/Open Electives for the Odd semester 2025-26.** SUGB deliberated and directed the Department of Civil Engineering to circulate proposed courses among all faculty members for their comments.
Item No. 48-5.2	**To consider correction in the UG RR's 2024 clause no. 13.5 Exit Options.** SUGB recommended the following correction in clause no. 13.5 Exit Options Table 3 S.No. 2 Column 2, **B.Sc. (Engg.) Degree** must be corrected as **B.Sc. Degree** as per the minutes of the 44th Senate meeting, Annexure I.

Associate Dean (UG)

Chairman SUGB

The meetings were attended by the following members:

S. No.	Name of Faculty	Designation
1.	Prof. Lava Bhargava	Chairman SUGB
2.	Prof. Suja George	Chairman SPGB
3.	Prof. D. Boolchandani	Dean Academic
4.	Dr. Yogesh Meena	Associate Dean PG
5.	Dr. Ram Dayal	Associate Dean UG
6.	Ms. Kalpana Pandit	Convener DUGC, Department of Architecture and Planning
7.	Dr. Mahipal Prithvisinh Jadeja	Convener DUGC, Department of Artificial Intelligence and Data Engineering
8.	Dr. U. K. Arun Kumar	Convener DUGC, Department of Chemical Engineering
9.	Dr. Arka Prokash Mazumdar	Convener DUGC, Department of Computer Science and Engineering
10.	Dr. Kuleep Singh	Convener DUGC, Department of Electronics and Communication Engineering
11.	Dr. Dipti Sharma	Convener DUGC, Department of Humanities and Social Science
12.	Dr. Sanjay Bhatter	Convener DUGC, Department of Mathematics
13.	Dr. Gunjan Soni	Convener DUGC, Department of Mechanical Engineering
14.	Dr. Krishna Kumar	Convener DUGC, Department of Metallurgical and Materials Engineering
15.	Dr. Anirban Dutta	Convener DUGC, Department of Physics
16.	Dr. Neha Shrivastava	Assistant Professor, Department of Civil Engineering
17.	Dr. Sanyam Dangayach	Assistant Professor, Department of Civil Engineering
18.	Himanshu Kushwaha (2022UCP1186)	Student Nominee

The following members couldn't attend the meetings:

S. No.	Name of Faculty	Designation
1.	Prof. Rajeev Shringi	Ex-Chairman, SUGB
2.	Dr. Nivedita Kaul	Nominee Chairman Senate
3.	Prof. Gunwant Sharma	Convener DUGC, Department of Civil Engineering
4.	Dr. Sunanda Sinha	Convener DUGC, Department of Centre for Energy and Environment
5.	Dr. Pradeep Kumar	Convener DUGC, Department of Chemistry
6.	Dr. Vinay Pratap Singh	Convener DUGC, Department of Electrical Engineering
7.	Dr. Aakanksha Kataria	Convener DUGC, Department of Management Studies
8.	Dr. Kamakshi Pandey	Convener DUGC, Department of Material Research Center
9.	Manvendra Singh (2021UCH1649)	Student Nominee

मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

MINUTES OF THE 49th MEETING OF SUGB HELD ON 03RD JULY 2025

49th Meeting of SUGB held on 03rd July 2025 at 3:30 PM in the Meeting Room No.3 (Old Senate Room), Prabha Bhawan, MNIT Jaipur.

The following agenda items were discussed, and the recommendations are as follows:

Item No. 49-1.0	**To confirm the minutes of the 48th meeting of SUGB.** The minutes were confirmed.
Item No. 49-2.0	**To Note the "Action Taken" on the decisions taken in the 48th meeting of SUGB.** Action taken on the decision made was noted
Item No. 49-3.0	**Items for Consideration.**
Item No. 49-3.1	**To consider the recommendations of the committee constituted to decide the implementation of the modalities to permit student for internship.** Dr. Gunjan Soni presented and highlighted the major improvements carried out by the committee and its implementation plan on ERP. SUGB recommended the same for approval by the Senate.
Item No. 49-3.2	**To consider the mercy request of Udbhav Navin Chitransh (2019UMT1269).** Mr. Udbhav Navin Chitransh (2019UMT1269) was continuously absent from the institute, past two academic sessions (2023–24 and 2024–25). He did not register after his 8th semester and has earned 191 credits out of the required 199 credits for the degree. The SUGB in the 47th SUGB meeting (Agenda Item 47-5.2) held on 23rd and 27th January 2025 recommended that the respective DUGC Conveners personally contact the concerned students and encourage them to complete their degrees. Accordingly, request emails were sent to the relevant DUGCs to initiate contact and explore possible re-engagement. Following that, the student has applied for a mercy request to complete his degree. As per the regulations, *"The maximum number of gap semesters will be limited to TWO only. The list of such students who do not register even after a gap of two semesters will be placed before SUGB for recommending it to the Senate for termination from the program."* *And **Clause 8.8**, ".....A maximum of two semester withdrawals can be availed in the entire duration of the program....."*

The details of his pending backlog courses are as under:

Student ID	Student Name	Course Code	Course Name	Credit	Semester	Grade
2019UMT1269	Udbhav Navin Chitransh	MTT402	Physical Metallurgy of Alloy Steels & Cast Irons	4	VIII	FA
		MTT320	Steel Making	4	VI	FP

Recommendations of the DUGC and SUGB:

S. No.	Student Name	Department/DUGC Recommendation	SUGB recommendations
1.	Udbhav Navin Chitransh (2019UMT1269) Department of Metallurgical and Materials Engg.	Recommended, DUGC recommended a mercy request along with 02 additional semester withdrawals over and above the maximum allowable limit.	Recommended, considering that students needs to pass only 2 courses to obtain B.Tech. Degree.

Item No. 49-3.3 **To consider the matter of Ms. Dhanavath Keerthi (2023UMT1473) regarding termination from the Institute's roles.**

Ms. Dhanavath Keerthi (2023UMT1473) was admitted in the B.Tech. Metallurgical and Materials Engineering program at MNIT Jaipur in the academic year 2023-24. During her first year (AY 2023-24), she failed to earn a minimum of 30 credits required for promotion to II Year, due to which she was put on Year-Back and has to study all courses of first year as a fresh student. In her II year (Academic Year 2024-25) she again failed to earn minimum credits required for promotion to the next year.

As per the Institute's UG Rules and Regulations Manual 2024, **Clause 14** TERMINATION OF ENROLMENT TO THE PROGRAM, *Enrolment of a student of the UG program may be terminated by the Senate* "if *the student is unable to earn 30 credits in first year of UG program even after being placed on year back.*" **[sub-clause (d)]**

SUGB recommended the termination of Ms. Dhanavath Keerthi (2023UMT1473) from the Institute's roles for consideration and approval of the Senate.

Item No. 49-3.4 **To consider the proposal for Engaging Senior Undergraduate Students as Teaching Assistants.**

To improve the quality and effectiveness of tutorial and laboratory sessions, and to create structured peer learning opportunities, it is proposed to introduce a Teaching Assistantship Scheme for undergraduate students. This initiative will allow academically strong senior students to support faculty members in engaging tutorials

- *Feedback will be collected from students to evaluate the overall effectiveness of the TA's involvement.*

Benefits of the Scheme:

- **For Junior Students:** The presence of approachable senior students during tutorials and labs can **encourage juniors to freely clarify doubts** that they might otherwise hesitate to discuss with professors.
- **For Senior Students (TAs):** The engagement offers an opportunity to **deepen their subject knowledge**, reinforce concepts, and develop teaching and communication skills that are valuable for future academic or professional pursuits.
- **For Faculty:** The support from TAs can enhance student engagement and allow more individualized attention during lab and tutorial sessions, and development of high-quality supplementary material for future use.

For the Institute: **The creation of a** content repository **(animations, code, etc.) will serve as a valuable academic resource over time.**

SUGB recommended the proposal for Engaging Senior Undergraduate Students as Teaching Assistants to the Senate for its consideration and approval.

Item No. 49-3.5

To consider the proposal of MRC for the Inclusion of Four Open Elective Courses in the New UG Scheme.

A proposal has been submitted by MRC to include the following four Open Elective Courses in the New UG Scheme:

Course Code	Course Name	Credits (L-T-P)
21MST501	Design of Materials	3-0-0
21MST817	Energy Materials and Their Application	3-0-0
21MST805	Introduction to Soft Materials	3-0-0
21MST822	Nanomaterials Technology	3-0-0

The above-mentioned courses were initially approved as program electives under the M.Tech program "Materials Science and Engineering" offered by the Materials Research Centre (MRC). These courses have also been consistently offered as open electives for undergraduate (UG) students.
As the M.Tech program in "Materials Science and Engineering" has been inactive for the past two academic years, these courses have effectively served only as open electives for UG programs.

In light of this, it is proposed that these courses be formally included as open electives in the new UG curriculum scheme, to be implemented from the Academic Year 2025–26 onwards.

These courses are active for last four year with good number (60) of registered students from different UG programs like Chemical, Mechanical, Civil, Electrical,

and labs while simultaneously reinforcing their own understanding of course material and will promote a culture of peer learning among students.

Scheme Outline:

Call for Applications from Faculty:

- *Faculty members who wish to avail the support of Teaching Assistants (TAs) may apply through a formal call circulated by the academic office.*
- *A maximum of one TA per faculty member will be permitted under this scheme.*

Eligibility Criteria for Student TAs:

- *Only 3rd year and final year UG students with a CGPA of 8.0 or above are eligible.*
- *The role is strictly supportive and under the supervision of the assigned faculty member.*

Scope of Work:

- *Assisting the Course coordinator in tutorial or laboratory classes.*
- *Providing guidance to junior students during problem-solving sessions and practical exercises.*
- **Assisting the faculty in the creation of learning content**, *preferably in the form of:*

  Animations (e.g., visual explanations of concepts), Interactive codes and simulations

Engagement Hours:

- *TAs may be engaged for up to 4 hours per week during the semester.*

Honorarium and Certification:

- *A certificate of Teaching Assistantship will be issued upon successful completion of duties.*
- *A modest financial assistance will be offered, the amount of which will be determined by the competent authority depending on institutional policies.*

Selection Process:

- *Interested students must apply via a standard application form.*
- *Selection will be based on academic performance, and recommendation from DUGC and supervising faculty.*

Feedback:

- *The supervising faculty will monitor the TA's performance and submit a brief assessment at the end of the semester.*

	Metallurgical and Material Engineering etc. SUGB, after detailed deliberation, recommended the proposal of MRC for the Inclusion of Four Open Elective Courses in the New UG Scheme to the Senate for its consideration and approval.
Item No. 49-3.6	**To consider the proposal for the Implementation of Exit Feedback.** In the 46th SUGB meeting, It was decided to send the proposed Exit Feedback form to the Departments for their feedback and suggestions to be put up in the next SUGB. The feedback received from the Departments were placed in the 48th meeting of the SUGB under Item No. 48-3.7. SUGB, after deliberation, proposed to constitute a committee of the following faculty members to include the necessary comments received from the departments and give its recommendations for consideration in the upcoming SUGB: 1. Prof. Incharge, Training and Placement - Chairman 2. Associate Dean UG - Convener 3. Prof. Vineet Sahula - Member 4. Dr. Oayes Midda - Member The committee submitted their recommendations. SUGB, after deliberation, approved the recommendations of the committee for the Implementation of Exit Feedback for accreditation purposes.
Item No. 49-3.7	**To consider the proposal submitted by the Department of Civil Engineering to run Program Electives/Open Electives for the Odd semester 2025-26.** The matter to run Program Electives/Open Electives for the Odd semester 2025-26 was placed in the 48th SUGB meeting under Item No. 48-5.1. SUGB deliberated and directed the Department of Civil Engineering to circulate proposed courses among all faculty members for their comments. Accordingly, the syllabus and scheme were circulated among all the faculty members for their comments by the department. No major comments or suggestions were received. SUGB, after deliberation, recommended the proposal submitted by the Department of Civil Engineering to run Program Electives/Open Electives with all courses being (3-0-0) credits for the Odd semester 2025-26 to the Senate for its consideration and approval.
Item No. 49-3.8	**To include the Institute Core Course Human Values and Professional Ethics (1-0-0) in the curriculum of B.Tech. II Year in all UG Programs.** The Department of Humanities and Social Sciences has submitted a proposal for the inclusion of the Institute Core Course *Human Values and Professional Ethics (1-0-0)* in the B.Tech. second-year curriculum across all undergraduate programs. According to the Department, the course Human Values and Professional Ethics (HVPE) is to be offered in the II Year of all UG programs as per item no. 54-6.3 of the

	Minutes of the 54th Senate Meeting held on 24 April and 1 May 2024. The syllabus of the course has been circulated to all faculty members and has been approved. The overlaps in the syllabus of other courses being taught in different Departments have been removed. The Program Core Social Sciences and Professional Ethics (22HST241) being taught in B.Tech II Year CSE and AIDE has been reduced to a 3-credit course and renamed as Social Sciences and Ethics. The audit course in the 5th semester B.Tech. ECE Universal Human Values & Professional Ethics has been discontinued. SUGB directed the Department of Humanities and Social Sciences to schedule a meeting with the Head and Convener DUGC, Department of Computer Science and Engineering, and the Department of Humanities and Social Sciences. SUGB also authorized the Chairman SUGB to approve the above Institute core course.
Item No. 49-3.9	**To consider the list of students eligible for the award of a degree in UG programs in the 19th Annual Convocation-2025.** SUGB deferred the above item.
Item No. 49-3.10	**To consider the proposal of transferring the B.Tech. 1st year course on "Environmental Science" from Dept. of Civil Engineering to CEE with a new course and syllabus named as 'Energy, Environment & Sustainability'.** SUGB in its 47th meeting under Item No. 47-3.5, authorized Dean Academic to form a committee regarding the practicalities or possibilities for the proposal of transferring the B.Tech. 1st year course on "Environmental Science" from Dept. of Civil Engineering to CEE with a new course and syllabus named as 'Energy, Environment & Sustainability'. The following committee was constituted: S. No. | Name | 1. | Prof. A. P. S. Rathore | Chairman 2. | Prof. A. B. Gupta | Member 3. | Prof. K. R. Niazi | Member 4. | Dr. Ram Dayal | Convener The above committee submitted its recommendation on the proposal to transfer the course "Environmental Science". SUGB, deliberated and agreed with the recommendations of the committee (copy attached). As per the recommendations, the ownership of the course will remain with the Civil Engineering Department.
Item No. 49-3.11	**To consider the request of Rishu Sharma (2021UEC1054) regarding late fee waiver in Fee Submission for 5th and 6th Semester.** SUGB deliberated and constituted a committee of the following faculty members to recommend a policy regarding late fee waiver, considering possible similar cases under NEP 2020 Exit Policy before the next SUGB meeting:

	(i) Prof. Suja George — Convener (ii) Dr. Kuldeep Singh — Member (iii) Dr. Gunjan Soni — Member
Item No. 49-3.12	**To consider the matter of non-registration of open elective-I course by VI semester B.Arch. students (2022 batch) in the academic session 2024-25.** SUGB has concerns regarding the non-registration of the open elective-I course in the VI semester B.Arch. students (2022 batch) in the academic session 2024-25. SUGB advised Dean Academic to enquire about the lapses and suggest remedies for the same for consideration by the Chairman, SUGB. SUGB also directed that the academic section should check the scheme.
Item No. 49-4.0	**Items for Reporting**
Item No. 49-4.1	**To report the list of UG students permitted for internship for the Odd semester of Academic Year 2025-26.** Noted

Associate Dean (UG)

Chairman SUGB

The meetings were attended by the following members:

S. No.	Name of Faculty	Designation
1.	Prof. Lava Bhargava	Chairman SUGB
2.	Prof. Suja George	Chairman SPGB
3.	Prof. D. Boolchandani	Dean Academic
4.	Dr. Yogesh Meena	Associate Dean PG
5.	Dr. Ram Dayal	Associate Dean UG
6.	Ms. Kalpana Pandit	Convener DUGC, Department of Architecture and Planning
7.	Prof. Gunwant Sharma	Convener DUGC, Department of Civil Engineering
8.	Dr. U. K. Arun Kumar	Convener DUGC, Department of Chemical Engineering
9.	Dr. Smita Naval	Representative, Convener DUGC, Department of Computer Science and Engineering
10.	Dr. Kuleep Singh	Convener DUGC, Department of Electronics and Communication Engineering
11.	Dr. Dipti Sharma	Convener DUGC, Department of Humanities and Social Science
12.	Dr. Aakanksha Kataria	Convener DUGC, Department of Management Studies
13.	Dr. Neetu Kumari	Convener DUGC, Department of Materials Research Center
14.	Dr. Sanjay Bhatter	Convener DUGC, Department of Mathematics
15.	Dr. Gunjan Soni	Convener DUGC, Department of Mechanical Engineering
16.	Dr. Krishna Kumar	Convener DUGC, Department of Metallurgical and Materials Engineering
17.	Dr. Anirban Dutta	Convener DUGC, Department of Physics

The following members couldn't attend the meetings:

S. No.	Name of Faculty	Designation
1.	Prof. Rajeev Shringi	Ex-Chairman, SUGB
2.	Dr. Nivedita Kaul	Nominee Chairman Senate
3.	Dr. Mahipal Prithvisinh Jadeja	Convener DUGC, Department of Artificial Intelligence and Data Engineering
4.	Dr. Sunanda Sinha	Convener DUGC, Department of Centre for Energy and Environment
5.	Dr. Pradeep Kumar	Convener DUGC, Department of Chemistry
6.	Dr. Vinay Pratap Singh	Convener DUGC, Department of Electrical Engineering
7.	Manvendra Singh (2021UCH1649)	Student Nominee
8.	Himanshu Kushwaha (2022UCP1186)	Student Nominee

मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

24 अप्रेल 2025 को आयोजित शैक्षणिक मामलों की समिति (एएसी) की 48वीं बैठक के कार्यवृत्त

Minutes of the 48th Meeting of Academic Affairs Committee (AAC) held on 24.04.2025

शैक्षणिक मामलों की समिति (एएसी) की 48वीं बैठक 24 अप्रेल 2025 को दोपहर 12:15 बजे अधिष्ठाता शैक्षणिक कार्यालय, प्रभा भवन, मा.रा.प्रौ.सं. में आयोजित की गई थी। बैठक में निम्नलिखित सदस्यों ने भाग लिया:

The 48th Academic Affairs Committee (AAC) meeting was held on 24th April 2025 at 12:15 PM in the office of the Dean Academic, Prabha Bhawan, MNIT. The following members attended the meeting:

1. प्रो. डी. बूलचन्दानी (अधिष्ठाता, शैक्षणिक) Prof. D. Boolchandani (Dean, Academics)
2. प्रो. लव भार्गव (सभापति, सीनेट स्नातक बोर्ड (एसयूजीबी)) Prof. Lava Bhargava (Chairman, SUGB)
3. प्रो. सुजा जॉर्ज (सभापति, सीनेट स्नातकोत्तर बोर्ड (एसपीजीबी)) Prof. Suja George (Chairman, SPGB)
4. डॉ. योगेश कुमार मीणा (सह अधिष्ठाता, स्नातकोत्तर) Dr. Yogesh Kumar Meena (Associate Dean PG)
5. डॉ. राम दयाल (सह अधिष्ठाता, स्नातक) Dr. Ram Dayal (Associate Dean UG)

Item No. 48-1.0	**To confirm the minutes of the 47th meeting of the AAC held on 13th February 2025.** The AAC confirmed the minutes of the 47th meeting of the AAC held on 13th February 2025.
Item No. 48-2.0	**To note the "Action Taken" on the decisions taken in the 47th meeting of the AAC.** The AAC noted the action taken report on the decision taken in its 47th meeting.
Item No. 48-3.0	**Item for Consideration.**
Item No. 48-3.1	**To consider the request of Abhishek Yadav (2021UEC1528) submitted an application regarding the backlog course of the Training Seminar (ECS481) in VIII Semester.** The AAC reviewed the request of Abhishek Yadav (2021UEC1528) considering its impact on the student's future and job perspective. The AAC also discuss the matter in detail with the DUGC and Course Coordinator and consequently recommended that the student may be given relevant assignments to fulfill the attendance requirements of the particular course, Training Seminar (ECS481). The Student may be permitted to do his technical presentation, and he will register in the current semester with the appropriate late fee of Rs.10,000/- as per the minutes of the 57th Senate meeting, item no.57-1.4. The Course Coordinator agreed to conduct Training Seminar (ECS481) presentation for the student in the current semester.
Item No. 48-3.2	**To consider the request submitted by Vaibhav Dhoot (2022UME1161) through DUGC Convener, Department of Mechanical Engineering to remove the FP (Fail/Fail Pass) grade from the honors course record.** The AAC reviewed the request from Vaibhav Dhoot (2022UME1161), taking into account the recommendations from the DUGC and his inability to withdraw from the honors course on time due to a personal emergency. Based on the documents submitted by the student, AAC feels that student had sufficient time to withdraw from the honors course and therefore do not recommend any change of grade.

The meeting ended with a vote of thanks to the chair.

(डी. बूलचन्दानी)
अधिष्ठाता, शैक्षणिक
(D. Boolchandani)
Dean Academic

(लव भार्गव)
सभापति, सीनेट स्नातक बोर्ड
(एसयूजीबी)
(Lava Bhargava)
Chairman SUGB

(सुजा जॉर्ज)
सभापति, सीनेट स्नातकोत्तर बोर्ड
(एसपीजीबी)
(Suja George)
Chairman SPGB

डॉ. योगेश कुमार मीणा
सह अधिष्ठाता स्नातकोत्तर
(Yogesh Kumar Meena)
Associate Dean PG

डॉ. राम दयाल
सह अधिष्ठाता, स्नातक
(Ram Dayal)
Associate Dean UG

मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर
MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

12 जून 2025 को आयोजित शैक्षणिक मामलों की समिति (एएसी) की 49वीं बैठक के कार्यवृत्त
Minutes of 49th Meeting of Academic Affairs Committee (AAC) held on 12.06.2025

शैक्षणिक मामलों की समिति (एएसी) की 49वीं बैठक 12 जून 2025 को दोपहर 12.00 बजे बैठक कक्ष संख्या 3, अधिष्ठाता कार्यालय के पास, प्रभा भवन, मा.रा.प्रौ.सं. में आयोजित की गई थी। बैठक में निम्नलिखित सदस्यों ने भाग लिया:

The 49th Academic Affairs Committee (AAC) meeting was held on 12th June 2025 at 12:00 Noon in Meeting room no.3, Near the Dean's office, Prabha Bhawan, MNIT. The following members attended the meeting

1. प्रो. डी. बूलचन्दानी (अधिष्ठाता, शैक्षणिक) Prof. D. Boolchandani (Dean, Academics)
2. प्रो. लव भार्गव (सभापति, सीनेट स्नातक बोर्ड (एसयूजीबी)) Prof. Lava Bhargava (Chairman, SUGB)
3. प्रो. सुजा जॉर्ज (सभापति, सीनेट स्नातकोत्तर बोर्ड (एसपीजीबी)) Prof. Suja George (Chairman, SPGB)
4. डॉ. योगेश कुमार मीणा (सह अधिष्ठाता, स्नातकोत्तर) Dr. Yogesh Kumar Meena (Associate Dean PG)
5. डॉ. राम दयाल (सह अधिष्ठाता, स्नातक) Dr. Ram Dayal (Associate Dean UG)

Item No. 49-1.0	**To confirm the minutes of the 48th meeting of the AAC held on 24th April 2025.** The AAC confirmed the minutes of the 48th meeting of the AAC held on **24th April 2025.**
Item No. 49-2.0	**To note the "Action Taken" on the decisions taken in the 48th meeting of the AAC.** The AAC noted the action taken report on the decision taken in its 48th meeting.
Item No. 49-3.0	**Item for Consideration.**
Item No. 49-3.1	**To consider the requests of students to allow register extra credit in supplementary exam.** **Suhani Mehra (2021UME1462)** has earned 178 credits till the end of 8th Semester, while 197 credits are to be earned for graduation. In order to successfully complete the graduation requirement the student has to earn 19 more credits. As per the regulations Clause 10.8(d) "a student can register for 18 credits or credit corresponding to 06 courses, whichever is less". Accordingly student has requested to allow registration of 05 backlog courses with total of 19 credits to save extension of graduation by one semester. Since the students is in final year the AAC recommends to allow the registration in 5 backlog courses (with one extra credit beyond the maximum limit) in supplementary examination. **Shahbaz Maqboo Wani (2021UCE1619)** has earned 170 credits till the end of 8th Semester, while 190 credits are to be earned for graduation. In order to successfully complete the graduation requirement the student has to earn 19 more graded credits and one ungraded credit. As per the regulations Clause 10.8(d) "a student can register for 18 credits or credit corresponding to 06 courses, whichever is less". Accordingly

	student has requested to allow registration of 06 backlog courses with total of 19 graded credits and 01 non graded course (Discipline of 01 credit) to save extension of graduation by one semester. Since the students is in final year the AAC recommends to allow the registration in 06 + 01 backlog courses (19 + 01 credit) in supplementary examination.
Item No. 49-3.2	**To consider the request of Rishu Sharma (2021UEC1054) regarding late fee waiver in Fee Submission for 5th and 6th Semester.** The AAC reviewed the request of Rishu Sharma and recommend a policy may be formed considering possible similar cases under NEP 2020 exit policy
Item No. 49-3.3	**To consider the request of Manas Baijal (2024UME1626) to award the grade in the course Electrical Engineering Lab (22EEP102).** As per the account of course coordinator and DUGC, the student has attended the required classes in the semester and have given Mid-Term and End-Term exams, however, he did not register for the course. In such case, the AAC recommended to register the student with the appropriate late fee of Rs.10,000/- as per the minutes of the 57th Senate meeting, item no.57-1.4.
Item No. 49-3.4	**To consider the request of Shashwat Sinha (2023UCH1272) to register the course Chemical Reaction Engineering-1 (CRE-1) (22CHT251).** As per the account of course coordinator and DUGC, the student has attended the required classes in the semester and have given Mid-Term and End-Term exams, however, he did not register for the course. In such case, the AAC recommended to register the student with the appropriate late fee of Rs.10,000/- as per the minutes of the 57th Senate meeting, item no.57-1.4.
Item No. 49-3.5	**To consider the matter of non-registration of open elective-I course by VI semester B.Arch. students (2022 batch) in the academic session 2024-25.** The AAC recommended that the matter of adding one more elective course be taken up in the next SUGB meeting.

The meeting ended with a vote of thanks to the chair.

(डी. बूलचन्दानी)
अधिष्ठाता, शैक्षणिक
(D. Boolchandani)
Dean Academic

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