

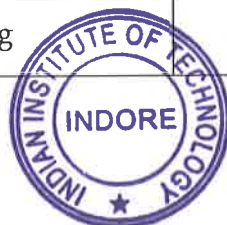


Indian Institute of Technology Indore

Minutes of the 60<sup>th</sup> meeting of the Senate held on January 29, 2026 (Thursday) at 3.00 p.m.

Attendance of the Senate Members :

| S. No.                     | Name                             | Designation / Department             | Mode of Attendance |
|----------------------------|----------------------------------|--------------------------------------|--------------------|
| <b>Chairman</b>            |                                  |                                      |                    |
|                            | Professor Suhas S. Joshi         | Director, IIT Indore                 | Present            |
| <b>External Experts</b>    |                                  |                                      |                    |
| 1                          | Professor Himanshu Rai           | Director, IIM Indore                 | Online Attended    |
| <b>Deans</b>               |                                  |                                      |                    |
| 2                          | Professor Vipul Singh            | Dean, Academic Affairs               | Present            |
| 3                          | Professor Sandeep Chaudhary      | Dean, Administration                 | Online Attended    |
| 4                          | Professor Prabhat Kumar Upadhyay | Dean, International Relations        | Online Attended    |
| 5                          | Professor Pankaj R. Sagdeo       | Dean of Infrastructure Development   | Leave of Absence   |
| 6                          | Professor Abhirup Datta          | Dean, Research and Development       | Online Attended    |
| 7                          | Professor Amod C. Umarikar       | Dean, Student Affairs                | Present            |
| 8                          | Professor Suman Mukhopadhyay     | Dean, Alumni and Corporate Relations | Leave of Absence   |
| 9                          | Professor Abhishek Srivastava    | Dean, Faculty Affairs                | Leave of Absence   |
| 10                         | Professor Devendra L. Deshmukh   | Dean, Educational Outreach           | Online Attended    |
| 11                         | Prof. Satya S. Bulusu            | Dean, IT Infrastructure & Automation | Online Attended    |
| <b>Head of Departments</b> |                                  |                                      |                    |
| 12                         | Dr. Gourab Sil                   | HOD, Civil Engineering               | Present            |



|                        |                                  |                                                      |                  |
|------------------------|----------------------------------|------------------------------------------------------|------------------|
| 13                     | Dr. Ranveer Singh                | HOD, Computer Science and Engineering                | Present          |
| 14                     | Dr. Swaminathan R.               | HOD, Electrical Engineering                          | Present          |
| 15                     | Professor Shanmugam Dhinakaran   | HOD, Mechanical Engineering                          | Online Attended  |
| 16                     | Dr. Ajay Kumar Kushwaha          | HOD, Metallurgical Engineering and Materials Science | Leave of Absence |
| 17                     | Dr. Saurabh Das                  | HOD, Astronomy, Astrophysics and Space Engineering   | Present          |
| 18                     | Professor Tushar Kanti Mukherjee | HOD, Chemistry                                       | Leave of Absence |
| 19                     | Dr. Sanjeev Singh                | HOD, Mathematics                                     | Present          |
| 20                     | Professor Preeti A. Bhobe        | HOD, Physics                                         | Present          |
| 21                     | Dr. Eswara Prasad Kormilli       | HOD, Chemical Engineering                            | Present          |
| <b>Head of Schools</b> |                                  |                                                      |                  |
| 22                     | Professor Ruchi Sharma           | HOD, Humanities and Social Sciences                  | Present          |
| 23                     | Dr. Parimal Kar                  | HOD, Mehta Family School of BSBE                     | Online Attended  |
| 24                     | Professor Pritee Sharma          | HOD, Mehta Family School of Sustainability           | Online Attended  |
| <b>Professors</b>      |                                  |                                                      |                  |
| 25                     | Professor Neelesh Kumar Jain     | Mechanical Engineering                               | Leave of Absence |
| 26                     | Professor Anand Parey            | Mechanical Engineering                               | Leave of Absence |
| 27                     | Professor Ram Bilas Pachori      | Electrical Engineering                               | Leave of Absence |
| 28                     | Professor Abhinav Kranti         | Electrical Engineering                               | Leave of Absence |
| 29                     | Professor Vimal Bhatia           | Electrical Engineering                               | Leave of Absence |
| 30                     | Professor Rajneesh Misra         | Chemistry                                            | Leave of Absence |
| 31                     | Professor Suman Mukhopadhyay     | Chemistry                                            | Leave of Absence |
| 32                     | Professor Subhendu Rakshit       | Physics                                              | Leave of Absence |
| 33                     | Professor Krushna R. Mavani      | Physics                                              | Online Attended  |

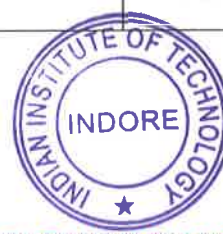


|    |                                      |                                               |                  |
|----|--------------------------------------|-----------------------------------------------|------------------|
| 34 | Professor Sarika Jalan               | Physics                                       | Online Attended  |
| 35 | Professor Sandeep Chaudhary          | Civil Engineering                             | Online Attended  |
| 36 | Professor Avinash Sonawane           | Biosciences and Biomedical Engineering        | Online Attended  |
| 37 | Professor G.S. Murthy                | Biosciences and Biomedical Engineering        | Leave of Absence |
| 38 | Professor Santosh Kumar Vishvakarma  | Electrical Engineering                        | Leave of Absence |
| 39 | Professor Shaibal Mukherjee          | Electrical Engineering                        | Leave of Absence |
| 40 | Professor Vipul Singh                | Electrical Engineering                        | Present          |
| 41 | Professor Prabhat Kumar Upadhyay     | Electrical Engineering                        | Leave of Absence |
| 42 | Professor Trapti Jain                | Electrical Engineering                        | Leave of Absence |
| 43 | Professor Mukesh Kumar               | Electrical Engineering                        | Leave of Absence |
| 44 | Professor Manish Kumar Goyal         | Civil Engineering                             | Leave of Absence |
| 45 | Professor Neelima Devarakonda Satyam | Civil Engineering                             | Present          |
| 46 | Professor Palani Iyamperumal Anand   | Mechanical Engineering                        | Leave of Absence |
| 47 | Professor Bhupesh Kumar Lad          | Mechanical Engineering                        | Leave of Absence |
| 48 | Professor Santosh Kumar Sahu         | Mechanical Engineering                        | Leave of Absence |
| 49 | Professor Ritunesh Kumar             | Mechanical Engineering                        | Leave of Absence |
| 50 | Professor Dhinakaran Shanmugam       | Mechanical Engineering                        | Online Attended  |
| 51 | Professor Aruna Tiwari               | Computer Science and Engineering              | Present          |
| 52 | Professor Abhishek Srivastava        | Computer Science and Engineering              | Leave of Absence |
| 53 | Professor Kapil Ahuja                | Computer Science and Engineering              | Leave of Absence |
| 54 | Professor Abhirup Datta              | Astronomy, Astrophysics and Space Engineering | Online Attended  |
| 55 | Professor Amit Kumar                 | Biosciences and Biomedical Engineering        | Online Attended  |
| 56 | Professor Prashant Kodgire           | Biosciences and Biomedical Engineering        | Leave of Absence |



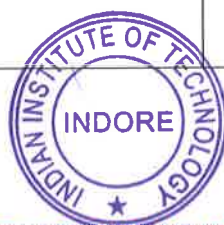
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|    |                                  |                                                 |                  |
|----|----------------------------------|-------------------------------------------------|------------------|
| 57 | Professor Sk. Safique Ahmad      | Mathematics                                     | Leave of Absence |
| 58 | Professor Apurba Kumar Das       | Chemistry                                       | Leave of Absence |
| 59 | Professor Sampak Samanta         | Chemistry                                       | Leave of Absence |
| 60 | Professor Sanjay Kumar Singh     | Chemistry                                       | Online Attended  |
| 61 | Professor Biswarup Pathak        | Chemistry                                       | Leave of Absence |
| 62 | Professor Nirmala Menon          | Humanities and Social Sciences                  | Online Attended  |
| 63 | Professor Pritee Sharma          | Humanities and Social Sciences                  | Online Attended  |
| 64 | Professor Ruchi Sharma           | Humanities and Social Sciences                  | Present          |
| 65 | Professor Preeti Anand           | Physics                                         | Present          |
| 66 | Professor Rajesh Kumar           | Physics                                         | Leave of Absence |
| 67 | Professor Sudeshna Chattopadhyay | Physics                                         | Leave of Absence |
| 68 | Professor Parasharam M. Shirage  | Metallurgical Engineering and Materials Science | Online Attended  |
| 69 | Professor Swadesh K. Sahoo       | Mathematics                                     | Leave of Absence |
| 70 | Professor Raghunath Sahoo        | Physics                                         | Present          |
| 71 | Professor Amod C. Umarikar       | Electrical Engineering                          | Present          |
| 72 | Professor Vivek Kanhangad        | Electrical Engineering                          | Leave of Absence |
| 73 | Professor Srivathsan Vasudevan   | Electrical Engineering                          | Leave of Absence |
| 74 | Professor Devendra L. Deshmukh   | Mechanical Engineering                          | Online Attended  |
| 75 | Prof. Pankaj Ramesh Sagdeo       | Physics                                         | Leave of Absence |
| 76 | Prof. Ankhi Roy                  | Physics                                         | Present          |
| 77 | Prof. Somaditya Sen              | Physics                                         | Leave of Absence |
| 78 | Prof. Mobin Shaikh               | Chemistry                                       | Leave of Absence |
| 79 | Prof. Tushar Kanti Mukherjee     | Chemistry                                       | Leave of Absence |



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|     |                                      |                                                 |                  |
|-----|--------------------------------------|-------------------------------------------------|------------------|
| 80  | Prof. Anjan Chakraborty              | Chemistry                                       | Leave of Absence |
| 81  | Professor Satya Silendra Bulusu      | Chemistry                                       | Online Attended  |
| 82  | Professor Chelvam Venkatesh          | Chemistry                                       | Leave of Absence |
| 83  | Professor Kiran Bala                 | Biosciences and Biomedical Engineering          | Leave of Absence |
| 84  | Professor Mirza Saqib Baig           | Biosciences and Biomedical Engineering          | Leave of Absence |
| 85  | Professor Anirban Sengupta           | Computer Science and Engineering                | Leave of Absence |
| 86  | Professor Neminath Hubballi          | Computer Science and Engineering                | Leave of Absence |
| 87  | Professor Rupesh Shivaji Devan       | Metallurgical Engineering and Materials Science | Present          |
| 88  | Professor Santosh Sattappa Hosmani   | Metallurgical Engineering and Materials Science | Leave of Absence |
| 89  | Professor Antony Vijesh Villavarayan | Mathematics                                     | Online Attended  |
| 90  | Professor Niraj Kumar Shukla         | Mathematics                                     | Leave of Absence |
| 91  | Professor Satyajit Chatterjee        | Mechanical Engineering                          | Online Attended  |
| 92  | Professor Kazi Sabiruddin            | Mechanical Engineering                          | Leave of Absence |
| 93  | Professor Pavan Kumar Kankar         | Mechanical Engineering                          | Online Attended  |
| 94  | Professor Sharad Gupta               | Biosciences and Biomedical Engineering          | Leave of Absence |
| 95  | Professor Surya Prakash              | Computer Science and Engineering                | Leave of Absence |
| 96  | Professor Somnath Dey                | Computer Science and Engineering                | Present          |
| 97  | Professor Sanjaram Premjit Khanganba | Humanities and Social Sciences                  | Online Attended  |
| 98  | Professor M. Tanveer                 | Mathematics                                     | Leave of Absence |
| 99  | Professor Shailesh Kundalwal         | Mechanical Engineering                          | Leave of Absence |
| 100 | Professor Debayan Sarkar             | Chemistry                                       | Online Attended  |
| 101 | Professor Gourinath Banda            | Computer Science and Engineering                | Online Attended  |
| 102 | Professor Mohd. Aquil Khan           | Mathematics                                     | Leave of Absence |



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| Other Authorities |                             |                                                   |                  |
|-------------------|-----------------------------|---------------------------------------------------|------------------|
| 103               | Dr. Saptarshi Ghosh         | Chief Warden                                      | Leave of Absence |
| 104               | Professor Sandeep Chaudhary | Convener, Health Center Advisor Committee         | Online Attended  |
| 105               | Dr. Anand Petare            | Workshop Superintendent, Central Workshop         | Leave of Absence |
| Secretary         |                             |                                                   |                  |
| 106               | Mr. S. P. Hota              | Registrar, IIT Indore                             | Present          |
| Special Invitees  |                             |                                                   |                  |
| 107               | Dr. Priyank J. Sharma       | DPGC Convener, Department of Civil Engineering    | Present          |
| 108               | Dr. Priyansh Singh          | Programme Coordinator, M.Tech. TSE                | Present          |
| 109               | Dr. Gaurav Chauhan          | DPGC Convener, Department of Chemical Engineering | Present          |
| 110               | Dr. Kedarmal Verma          | Assistant Professor (for agenda item 60.7)        | Present          |
| 111               | Dr. Kumar Gaurav            | Assistant Registrar, Academic Affairs             | Present          |
| 112               | Mr. Tapesb Parihar          | Section Officer and PA to DoAA                    | Present          |



**Minutes of the 60<sup>th</sup> meeting of the Senate held on January 29, 2026**

**ITEM NO. 60.1: Welcome and Opening remark by the Chairman, Senate.**

The Chairman, Senate, welcomed all the members present in the meeting and welcomed Professor Himanshu Rai, Director of the Indian Institute of Management (IIM) Indore for renomination in the Senate.

He also appraised that IIT Indore has signed an MoU with Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) establishing a framework for interdisciplinary collaboration, knowledge sharing, and innovation, including but not limited to digital healthcare, digital twins, simulation systems, AI/ML-driven healthcare solutions, medical device evaluation, and technology-driven clinical workflows.

**ITEM NO. 60.2: Confirmation of minutes of the meeting of 59<sup>th</sup> Senate held on 22<sup>nd</sup> December 2025.**

The Senate confirmed the minutes of the 59<sup>th</sup> Meeting of the Senate held on 22<sup>nd</sup> December 2025, with the remark that the M.Tech. programme in Transportation Planning will commence from 2027-Spring Semester, subject to the recruitment of sufficient faculty members in time; otherwise, the programme will be started from AY 2027-28.

**ITEM NO. 60.3: Action Taken Report (ATR) on minutes of 59<sup>th</sup> Meeting of the Senate held on 22<sup>nd</sup> December 2025.**

The Senate noted the Action Taken Report (ATR) of the minutes of the 59<sup>th</sup> Meeting of the Senate held on 22<sup>nd</sup> December 2025.

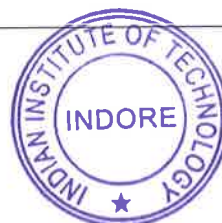
**ITEM NO. 60.4: Syllabi of the 1<sup>st</sup> semester courses of M.Tech. in Transportation Systems Engineering and M.Tech. in Geotechnical Engineering by the Department of Civil Engineering.**

After due deliberation, the Senate approved the syllabi of the 1<sup>st</sup> semester courses for M.Tech. in Transportation Systems Engineering and M.Tech. in Geotechnical Engineering.

**Course Structure of 2-Year Full-Time M. Tech. Program in Transportation Systems Engineering**

**1<sup>st</sup> Year: Semester-I**

| Course code    | Course Title                 | Contact hours<br>(L-T-P-C) | Remarks  |
|----------------|------------------------------|----------------------------|----------|
| CE 4XX/ CE 6XX | Advanced Traffic Engineering | 2-1-0-3                    | Approved |
| CE 4XX/ CE 6XX | Transportation Planning      | 2-1-0-3                    | Approved |



|                  |                                      |           |                                                                                                                                                                                                                                                                                                                                                                         |
|------------------|--------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CE 6XX           | Computational Traffic Studio         | 0-0-3-1.5 | Approved                                                                                                                                                                                                                                                                                                                                                                |
| CE 4XX/ CE 6XX   | Geometric Design of Roads            | 2-1-0-3   | <ul style="list-style-type: none"> <li>The last module “<b>Advanced Design Applications</b>” should be renamed as “<b>Design Application Project</b>”.</li> <li>The use of <b>application software and simulations</b> may be included under “<b>Design Applications Project</b>”; however, specific software names need not be mentioned.</li> <li>Approved</li> </ul> |
| CE 4XX/ CE 6XX   | Pavement Materi                      | 2-1-0-3   | <ul style="list-style-type: none"> <li>Approved</li> <li>The use of <b>application software</b> may be added in the syllabus under the chapter “<b>Performance Characterisation of Bituminous Mixes</b>”; however, specific software names need not be mentioned</li> </ul>                                                                                             |
| CE 6XX           | Pavement Characterization Lab        | 0-0-3-1.5 | <ul style="list-style-type: none"> <li>Approved</li> <li>The course title is updated from “<b>Pavement Materials Lab</b>” to “<b>Pavement Characterization Lab</b>”.</li> </ul>                                                                                                                                                                                         |
| Elective courses |                                      |           |                                                                                                                                                                                                                                                                                                                                                                         |
| CE 4XX/ CE 6XX   | Urban Freight and Logistics Planning | 2-1-0-3   | <ul style="list-style-type: none"> <li>Approved</li> <li>The chapter title “<b>Freight Policy and Case Studies</b>” is approved to be revised as “<b>Freight Policy and Case Study Projects.</b>”</li> <li>Include case studies and policies for application of learning.</li> </ul>                                                                                    |
| CE 4XX/ CE 6XX   | Transport Economics                  | 2-1-0-3   | <ul style="list-style-type: none"> <li>Approved</li> <li>Indians prospective of toll Tax to be added under the cost and Pricing strategies.</li> </ul>                                                                                                                                                                                                                  |
| CE 4XX/ CE 6XX   | Transportation System Analysis       | 2-1-0-3   | <ul style="list-style-type: none"> <li>Approved</li> <li>Updated version of Books to be used.</li> <li>Book of, Khisty, C.J., and Lall, B.K., Transportation Engineering to be used as test book instead of reference book.</li> </ul>                                                                                                                                  |



|                |                             |         |                                                                                                                                                                                                                                                                                                                                                                            |
|----------------|-----------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CE 4XX/ CE 6XX | Airport Planning and Design | 2-1-0-3 | <ul style="list-style-type: none"> <li>The chapter title "Runway and Taxiway Design" is approved to be revised as "Runway and Taxiway Design Projects", and case studies of complex terrains may be included.</li> <li>Further projects to be added in the Airport facilities and Terminals.</li> <li>Include case studies on safety aspects.</li> <li>Approved</li> </ul> |
|----------------|-----------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

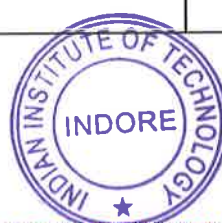
### Course Structure of 2-Year Full-Time M. Tech. Program in Geotechnical Engineering

#### 1st Year: Semester-I

| Course code                                      | Course Title                                     | Contact hours (L-T-P-C) | Credits  |
|--------------------------------------------------|--------------------------------------------------|-------------------------|----------|
| CE 4XX/ CE 6XX                                   | Advanced Soil Mechanics                          | 2-1-0-3                 | Approved |
| CE 4XX/ CE 6XX                                   | Foundation Engineering and Design                | 2-1-0-3                 | Approved |
| CE 4XX/ CE 6XX                                   | Environmental Geotechnics                        | 2-1-0-3                 | Approved |
| CE 4XX/ CE 6XX                                   | Ground Improvement Techniques                    | 2-1-0-3                 | Approved |
| CE 6XX                                           | Advanced Soil Mechanics Laboratory               | 0-0-3-1.5(3/2)          | Approved |
| CE 6XX                                           | Geotechnical Modelling and Simulation Laboratory | 0-0-3-1.5(3/2)          | Approved |
| CE 6XX                                           | Elective I                                       | 0-0-3-3                 | Approved |
| Total minimum credits earned during the semester |                                                  |                         | 18       |

#### List of Elective I

| Course code | Course Title       | Contact hours (L-T-P-C) | Credits                                                                                                                                                                                                                           |
|-------------|--------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CE 6XX      | Pavement Materials | 2-1-0-3                 | <ul style="list-style-type: none"> <li>Approved</li> <li>The use of application software may be added in the syllabus under the chapter "Performance Characterisation of Bituminous Mixes"; however, specific software</li> </ul> |



|        |                             |         |                             |
|--------|-----------------------------|---------|-----------------------------|
|        |                             |         | names need not be mentioned |
| CE 6XX | Reinforced Earth Structures | 2-1-0-3 | Approved                    |
| CE 6XX | Unsaturated Soil Mechanics  | 2-1-0-3 | Approved                    |
| CE 6XX | Computational Geotechnics   | 2-1-0-3 | Approved                    |

**ITEM NO. 60.5: Syllabi of the 1<sup>st</sup> semester courses of M.Tech. in Chemical Processes Design and Intelligence by the Department of Chemical Engineering.**

After due deliberation, the Senate approved the syllabi of the 1<sup>st</sup> semester courses for the M.Tech. in Chemical Processes Design and Intelligence to be offered from AY 2026-27.

**1st Year: Semester-I**

| Course Code                                      | Course Title                               | Contact Hours (L-T-P-C) | Remark                                                                                                                                     |
|--------------------------------------------------|--------------------------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| ChE 4XX/<br>ChE 6XX                              | Transport Phenomena in Chemical Processes  | 2-1-0-3                 | Approved                                                                                                                                   |
| ChE 4XX/<br>ChE 6XX                              | Advanced Reaction Engineering              | 2-1-0-3                 | Approved                                                                                                                                   |
| ChE 4XX/<br>ChE 6XX                              | Thermodynamics for Chemical Process Design | 2-1-0-3                 | Approved                                                                                                                                   |
| ChE 4XX/<br>ChE 6XX                              | Process Monitoring & Control Systems       | 2-1-0-3                 | <ul style="list-style-type: none"> <li>Approved</li> <li>Include Mudgal's book.</li> </ul>                                                 |
| ChE 6XX                                          | Department Elective I                      | 2-1-0-3                 | -                                                                                                                                          |
| ChE 6XX                                          | Applied Computational Methods Lab          | 0-0-3-1.5               | Approved                                                                                                                                   |
| ChE 6XX                                          | Analytical tools and Techniques Lab        | 0-0-3-1.5               | <ul style="list-style-type: none"> <li>Approved</li> <li>Specific methods to be added in the list of representative experiments</li> </ul> |
| Total minimum credits earned during the semester |                                            |                         | 18                                                                                                                                         |

**Bucket 2 Courses for Electives for Semester I:**

| Course Code | Course Title                             | Contact Hours | Remarks  |
|-------------|------------------------------------------|---------------|----------|
| ChE 6XX     | CO2 capture, utilization and storage     | 2-1-0-3       | Approved |
| ChE 6XX     | Rheology of Complex Fluids               | 2-1-0-3       | Approved |
| ChE 6XX     | Bioseparations and Downstream Processing | 2-1-0-3       | Approved |

\* Note : Conversion from M.Tech to Ph.D (Dual Degree) will be as per Institute norms amended from time to time.



**ITEM NO. 60.6: Course structure of the newly proposed Executive M.Tech. Program in Heavy Vehicle Mobility Engineering for Case New Holland Construction Equipment (India) Private Limited (CASE) by the Center for Electric Vehicle and Intelligent Transport Systems (CEVITS).**

After due deliberation, the Senate approved the following course structure for the Executive M.Tech. Program in Heavy Vehicle Mobility Engineering for Case New Holland Construction Equipment (India) Private Limited (CASE) to be offered from AY 2026-27 with the following remarks:

- Include the course on “Data Science for Automotive Market” as core course in the second semester. Accordingly only three elective courses will be in the structure.
- External Thesis Supervisor from CASE will be called “Mentor” depending upon their qualifications.

**Course Structure of 2-Year Executive MTech Program in Heavy Vehicle Mobility Engineering**

**1<sup>st</sup> Year: Semester-I**

| Course Code                                             | Course Title                       | Contact hours (L-T-P-C) |
|---------------------------------------------------------|------------------------------------|-------------------------|
| EV 608                                                  | Hybrid and Electric Vehicles       | 2-1-0-3                 |
| EV 601                                                  | Vehicle Dynamics                   | 2-0-2-3                 |
| EV 603                                                  | Autotronics                        | 2-0-2-3                 |
| EV 605                                                  | Electrical Machines and Drives     | 2-0-2-3                 |
| EV 607                                                  | Energy Storage in Electric Vehicle | 2-1-0-3                 |
| <b>Total minimum credits earned during the semester</b> |                                    | <b>15</b>               |

**1<sup>st</sup> Year: Semester-II**

| Course Code                                             | Course Title                       | Contact hours (L-T-P-C) |
|---------------------------------------------------------|------------------------------------|-------------------------|
| EV 602                                                  | Vehicular Communication system     | 2-1-0-3                 |
| ZZ XXX                                                  | Data Science for Automobile Market | X-X-X-3                 |
| ZZ XXX                                                  | Elective - I                       | X-X-X-3                 |
| ZZ XXX                                                  | Elective - II                      | X-X-X-3                 |
| ZZ XXX                                                  | Elective - III                     | X-X-X-3                 |
| EV 698                                                  | PG seminar course                  | 0-2-0-2                 |
| <b>Total minimum credits earned during the semester</b> |                                    | <b>17</b>               |



**2<sup>nd</sup> Year: Semester-III**

| Course Code | Course Name                      | Contact hours<br>(L-T-P-C) |
|-------------|----------------------------------|----------------------------|
| EV 799      | MTech Research Project (Stage-I) | 0-0-36-18                  |

**Second Year: Semester-IV**

| Course Code                                                  | Course Name                       | Contact hours<br>(L-T-P-C) |
|--------------------------------------------------------------|-----------------------------------|----------------------------|
| EV 800                                                       | MTech Research Project (Stage-II) | 0-0-36-18                  |
| <b>Total minimum credits to be earned during the program</b> |                                   | <b>68</b>                  |

The students will take 4 electives in the second semester. A tentative list of electives is given below. The elective subjects will be selected based on the project requirements in discussion with project coordinator and industry co-supervisor and available electives in the given semester.

**Tentative list of Elective Basket**

| Course Code     | Course Name                       | Contact hours<br>(L-T-P-C) |
|-----------------|-----------------------------------|----------------------------|
| ME 632/ 432     | Vibrations and Noise Control      | 2-1-0-3                    |
| ME 630*         | Robotic Control Systems           | 2-1-2-4                    |
| ME 640/ ME 440* | Smart Materials and Structures    | 2-1-0-3                    |
| ME 648/ ME 448* | MEMS and Micro-System Design      | 2-1-0-3                    |
| ME 756/ ME 456* | Industrial Automation             | 2-0-2-3                    |
| ME 643/ 443     | Micromechanics and Nanomechanics  | 2-1-0-3                    |
| ME 736 / ME 436 | Finite Element Methods            | 2-0-2-3                    |
| EV XXX          | Advanced Engine Technology        | 2-1-0-3                    |
| EV XXX          | Autonomous Vehicle and ADAS       | 2-1-0-3                    |
| EE601           | Power Electronics                 | 2-1-0-3                    |
| EE603           | Optimization Techniques           | 2-1-0-3                    |
| CS 601/ CS 401  | Soft Computing                    | 2-0-2-3                    |
| CS 603/CS403    | Machine learning                  | 2-0-2-3                    |
| CS417/CS617*    | Cryptography and Network Security | 2-1-0-3                    |



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**ITEM NO. 60.7: Syllabi of proposed new courses.**

The Senate approved the syllabi of the following proposed courses:

| S. No. | Course code Title of the Course                                  | Contact Hours                    | Remarks                                                                                                                                                                                                                                                                                                 |
|--------|------------------------------------------------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | CS 4XX/ CS 6XX: Data Privacy and Privacy-Preserving Computation  | 2-1-0-3                          | <ul style="list-style-type: none"><li>• Approved</li><li>• Recent development in Indian Context to be added in the 1<sup>st</sup> Module</li><li>• Reference Book number 3 C. Dwork and A. Roth, <b>The algorithmic foundations of differential privacy</b>, current publisher to be updated.</li></ul> |
| 2      | CS 4XX/ CS 6XX: Quantum Computing Through Algebraic Graph Theory | 2-1-0-3                          | <b>Approved</b>                                                                                                                                                                                                                                                                                         |
| 3      | HS 3XX: Consumer Psychology and Marketing Dynamics               | 2-1-0-3                          | <ul style="list-style-type: none"><li>• <b>Approved</b></li><li>• Reference book Number 4 to be replaced with Marketing Management, by Philip Kotler, Kevin Lane Keller.</li><li>• Remove place of publication.</li></ul>                                                                               |
| 4      | PH 6XX: Electronic Devices and Circuits                          | 2-1-0-1.5<br>(3/2 half semester) | <ul style="list-style-type: none"><li>• Approved</li><li>• Correct typo errors of course contents.</li></ul>                                                                                                                                                                                            |

**ITEM NO. 60.8: Cross-listing of courses pertaining to the Department of Computer Science and Engineering and Department of Mathematics.**

After due deliberation, the Senate approved the cross-listing of the following courses between the Department of Computer Science & Engineering and the Department of Mathematics:

| S. No. | Present course code and title of the course   | Remarks                                                                  |
|--------|-----------------------------------------------|--------------------------------------------------------------------------|
| 1      | CS 213: Matrix Factorization and Applications | <b>Cross listed with Department of Mathematics.</b>                      |
| 2      | CS 215: Mathematics for AI and ML             |                                                                          |
| 3      | CS 212: Foundation of Algebraic Graph Theory  |                                                                          |
| 4      | CS 315: Introduction to Complexity Theory     |                                                                          |
| 5      | CS 319: Foundations of Cryptography           |                                                                          |
| 6      | MA 217: Linear Programming                    | <b>Cross listed with Department of Computer Science and Engineering.</b> |
| 7      | MA 219: Introduction to Dynamical Systems     |                                                                          |
| 8      | MA 210: Elementary Number Theory and Algebra  |                                                                          |

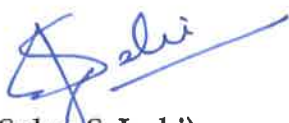


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|----|-----------------------------------------------------------------|--|
| 9  | MA 310: Algorithmic Techniques and Applications of Data Science |  |
| 10 | MA 311: Statistical Distribution Theory                         |  |
| 11 | MA 315: Mathematical Foundations for Cryptography               |  |
| 12 | MA 316: Spectral Graph Theory                                   |  |

**ITEM NO. 60.9:** Any other matter with the permission of the Chair.  
Nill.

Meeting ended with thanks to the chair.



(Professor Suhas S. Joshi)  
Director and Chairperson, Senate


  
(S. P. Hota)

Registrar and Secretary, Senate