
भारतीय प्रौद्योगिकी संस्थान जोधपुर
Indian Institute of Technology Jodhpur



॥ त्वं ज्ञानमयो विज्ञानमयोऽसि ॥

अभिषद
SENATE

35वीं बैठक के कार्यवृत्त

Minutes of
35th Meeting

12th October, 2023 (Thursday)
03:00 PM
Senate Room, IIT Jodhpur

This page is left blank, intentionally

Indian Institute of Technology Jodhpur



Minutes of 35th Meeting

12 October 2023 (Thursday) at 3:00 pm
Senate Room, IIT Jodhpur

The following members were present:

1	Prof. Santanu Chaudhury, Director, IIT Jodhpur	Chairman, Senate
2	Prof. S.R. Vadera, Deputy Director, IIT Jodhpur	Deputy Director, Ex-officio
3	Dr. Sanjeev Misra, Vice Chancellor, Atal Bihari Vajpayee Medical University, Lucknow (U.P.) and Former Director, AIIMS Jodhpur	Three persons, not being employees of the Institute, to be nominated by the Chairman in consultation with the Director, from among educationists of repute, one each from the fields of science, engineering and humanities; and
4	Prof. H.P. Khincha, Chairman, Karnataka State Innovation Council, Bangalore	
5	Prof. Purnima Singh, Department of Humanities & Social Sciences IIT Delhi	
6	Prof. Neeraj Jain, Deptt. Of BB	The professors appointed or recognized as such by the Institute for the purpose of imparting instruction in the Institute.
7	Prof. Mitali Mukerji, Deptt. Of BB	
8	Prof. Ajay Agarwal, Deptt. of EE	
9	Prof. Somitra K. Sanadhya, CS&E	
10	Prof. Sangeeta Sahney, SME	
11	Prof. Anil Kumar Tiwari, EE	
12	Prof. Ananya Debnath, Chemistry	
13	Prof. Samanwita Pal, Chemistry	
14	Prof. Atul Kumar, Chemistry	
15	Prof. Kaushal A. Desai, ME	
16	Prof. Rahul Chibber, ME	
17	Prof. Suril Shah, ME	
18	Prof. Ram Prakash, Physics	
19	Prof. Subhashish Banerjee, Physics	
20	Prof. Ambesh Dixit, Physics	
21	Prof. Ashutosh Kumar Alok, Physics	
22	Prof. Gaurav Harit, CS&E	
23	Prof. Amit Mishra, BSBE	
24	Prof. Sushmita Jha, BSBE	
25	Prof. Meenu Chhabra, BSBE	
26	Prof. Ankita Sharma, SoLA	

27	Prof. Samanwita Pal, Dean (R&D)	Deans
28	Prof. Surajit Ghosh, Dean (International Relations, Alumni Relations and Corporate Relations)	
29	Prof. Somitra K. Sanadhya, Dean (Digital Transformation)	
30	Prof. Atul Kumar, Dean (Academics)	
31	Prof. Ankita Sharma, Dean (Student Affairs)	
32	Prof. Ram Prakash, Dean (Infrastructure)	
33	Prof. Kaushal Desai, Dean (PRG, IITJ Connect & Executive Education)	Heads of the Departments or Schools as may be established by the Institute.
34	Prof. Mitali Mukerji, Department of Bioscience and Bioengineering	
35	Prof. P.K. Tewari, Department of Chemical Engineering	
36	Dr. Ramesh K. Metre, Department of Chemistry	
37	Prof. Gaurav Harit, Department of Computer Science & Engineering	
38	Prof. Ajay Agarwal, Department of Electrical Engineering	
39	Dr. V.V. M.S. Chandramouli, Department of Mathematics	
40	Prof. Suril V. Shah, Department of Mechanical Engineering	
41	Dr. K.R. Ravi, Department of Metallurgical & Materials Engineering	
42	Prof. Ashutosh Kumar Alok, Department of Physics	
43	Prof. Subhasish Dey, Department of Civil & Infrastructure Engineering	
44	Prof. Sangeeta Sahney, School of Management & Entrepreneurship (SME)	
45	Prof. Neeraj Jain, School of Artificial Intelligence & Data Science (AIDE)	
46	Prof. Meenu Chhabra, Centre for Emerging Technologies for Sustainable Development	
47	Dr. Krishna K Balaraman, Centre for Technology Foresight & Policy	
48	Dr. S.C. Bose, Inter-Disciplinary Research Platform (IDRP)	
49	Prof. Amitava Mitra, Center for Research & Development of Scientific Instruments	
50	Prof. Prodyut R. Chakraborty, Rishabh Center for Research and Innovation in Clean Energy	

51	Dr. Indranil Banerjee, AD (Hostel Affairs) Department of Bioscience and Bioengineering	One or more members of academics from each of the Departments and Schools, nominated by the Chairman of the Senate, for a period of one year, subject to a maximum of two persons from any Department or School.
52	Dr. Angan Sengupta, Associate, Professor Department of Chemical Engineering	
53	Dr. Dibyendu Kumar Sasmal, Department of Chemistry	
54	Dr. Debanjan Guha Roy, AD (PRG), Department of Civil & Infrastructure Engg.	
55	Dr. Abhishek Sarkar, AD (Student Affairs) Department of Mathematics	
56	Dr. Suchetana Chakraborty, AD (R&D), Department of Computer Science & Engineering	
57	Dr. Abir Bhattacharyya, Associate Professor, Department of Metallurgical & Materials Engineering	
58	Dr. S.C. Bose, Head (IDRP), Chairperson, IRC_IDRP	
59	Dr. Venkatesha Murthy R, Associate Professor, School of Management & Entrepreneurship	
60	Dr. Dipanjan Roy, Associate Professor, School of Artificial Intelligence & Data Science	
61	Prof. Ankita Sharma, Dean (Student Affairs), School of Liberal Arts	Special Invitees
62	Prof. C. Venketesan, Professor-in-charge (Faculty)	
63	Dr. Somnath Ghosh Faculty-in-charge (Curriculum Implementation)	
64	Dr. Manish Narwaria Associate Dean (Academics)	
65	Sh. P.G. Basak, Advisor (Administration)	Upto five student representatives nominated by the Chairman of the Senate, as special invitees, for a period of one year whose participation shall be for the non-evaluation items of the Senate.
66	General Secretary, ACAC	
67	General Secretary, Student Senate	
68	Vice President, Board of Academic Interaction	Secretary to the Senate
69	Dr. Somnath Ghosh, Offg. Registrar	

The following members and special invitees could not attend the Meeting	
1	Prof. Surajit Ghosh, Deptt. of BB, Dean (IR, AR and CR)
2	Prof. Mayank Vatsa, Deptt. of CS&E
3	Prof. Richa Singh, Deptt. of CS&E
4	Prof. Bharat Singh Rajpurohit, EE
5	Prof. Mahesh Kumar, EE

6	Prof. Manikandan Paranjothy, Chemistry
7	Prof. Rakesh Kumar Sharma, Chemistry
8	Prof. Anand Krishnan Plappally, ME
9	Prof. Prodyut Ranjan Chakraborty, ME
10	Prof. Deepakkumar M. Fulwani, EE, AD (Faculty Affairs)
11	Prof. Shree Prakash Tiwari, EE
12	Dr. Manish Gupta, Director Google Research India
13	Dr. Souvik Bhattacharyya, Former Vice Chancellor BITS, Pilani
14	Dr. Farhat Naz, School of Liberal Arts
15	Dr. Ankur Gupta, AD (IRO)
16	Dr. Satyajit Sahu, Associate Professor
17	Prof. Bijnan Bandyopadhyay, Head, Center for Education and Technology for Education

The following are the recommendations of the Senate:

S.No.	Items
35.1	Welcome by the Chairman, Senate
	<p>The Chairman, Senate welcomed all the members to the 35th Meeting of the Senate and called the meeting in order. He introduced the new members to the Senate as per the recent notification IITJ/REG/2023-24/100. Further he thanked all outgoing members for their contributions to the Senate.</p> <p>The Chairman, Senate further shared with the members that the term of Dr. R. Chidambaram as the Chairman, Board of Governance, IIT Jodhpur completed and Shri A. S. Kiran Kumar, the former Chairman, ISRO has been appointed as the new Chairman, Board of Governance, IIT Jodhpur. He further informed the Senate that Shri A. S. Kiran Kumar recently visited the institute and interacted with students, faculty members and staff members of the Institute. The new Chairman during his stay has also visited selected research laboratories of the Institute.</p> <p>During his visit, Shri A. S. Kiran Kumar suggested preparing a report on the Institute's progress in the direction of signal processing, AI and Machine Learning; he also suggested scope for further collaborations for further progress and augment the present research activities. Another area of importance that he has emphasized was environmental science and engineering for climate change prediction and to explore opportunities of collaboration with Industry in this regard. The Chairman, BoG also requested the photonics laboratory to design a simple quantum entanglement experiment kit for the demonstration to school/college students. The Chairman Senate apprised the members that the next BoG meeting is scheduled on 31 Oct 2023. The Chairman, Senate informed and congratulated the Senate members on the dedication of the permanent campus of IIT Jodhpur to the Nation by Hon'ble Prime Minister on 5 October 2023.</p> <p>The Chairman also briefed the Senate that based on state legislative assembly election dates and the availability of the Chief Guest, it is decided to organize the 9th Convocation ceremony on Tuesday (evening), 21 November 2023. The Chairman formally invited all the Senate Members to attend the 9th Convocation in person at the Institute. He further suggested planning the Alumni Induction Programme and Dinner accordingly.</p>

	<p>The Chairman shared with the Senate that major IT companies are predicting recession in jobs related to IT support services which may lead to retrenchment. It is evident that students are opting jobs in the IT support services in place of the core engineering disciplines due to high demand. The Chairman also apprised that the nature of coding/programming related jobs will see a major change with the advent of AI tools like ChatGPT. It will also impact M.Tech. admissions across IITs as many engineering colleges have closed down core engineering branches such as Civil or Chemical engineering. Further, he expressed that the Institute should be prepared for such a placement scenario and re-design the academic programs with emphasis on core engineering concepts to make them attractive and more job oriented. He suggested departmental societies to orient the students as per the trend.</p> <p>The Chairman also advised the HoDs and Senate members to carefully deal with these placement and PG Admissions issues at the departmental level. He suggested encouraging / attracting scientists working in National laboratories /Industries for joining Ph.D. programmes at the Institute. MoUs with such laboratories can also be initiated for a joint Ph.D. supervision with IITJ faculty members. If required, a flexible (Online and Offline) academic regulation for such scientists joining the Institute for Ph.D. programme may be designed. Such scientists having laboratory facilities at their parent organization, the minimum residency period of six months can be spread across the duration of the Ph.D. programme for such candidates.</p> <p>The Chairman, Senate further advised to submit a report on the Minor in Management and Entrepreneurship in line with the implementation of Students’ Innovation and Entrepreneurship policy.</p> <p>Finally, the Chairman apprised Senate members that the Institute is preparing a HEFA loan proposal of Rs. 720 crore for major infrastructure development and procurement of laboratory equipment based on the institute’s present repaying capacity for submission to the Ministry of Education.</p>															
35.1.1	Confirmation of Minutes of the 34th Meeting of the Senate held on 24th June, 2023															
	The Senate confirmed the Minutes of the 34 th Meeting of the Senate, as circulated on 14 March 2023.															
35.1.2	Report on Action Taken on decisions of the 34th Meeting of the Senate held on 24th June, 2023															
	<p>The Senate noted the Action Taken Report (ATR) on decisions of the 34th Meeting of the Senate held on 20 December 2022 and recommended the following:</p> <table><tr><th>Item</th><th>Discussion Item</th><th>Senate Recommendation</th></tr><tr><td>34.2.1</td><td>Proposal of a new certificate cum postgraduate diploma in Next Generation OMICS Technologies and Applications, from Department of Bioscience and Bioengineering</td><td>Under progress</td></tr><tr><td>34.2.2</td><td>Proposal for New M. Tech. Programme in Quantum Technologies</td><td>Implemented; Development of detailed course content is under process and will be presents in next Senate meeting</td></tr><tr><td>34.2.3</td><td>Course curriculum for Master program in XR Design</td><td>Implemented; A detailed course curriculum will be placed in the ensuing Senate meeting</td></tr><tr><td>34.6.1</td><td>Recommendation for conferment of Honoris Causa Doctorate to the Eminent Personalities for their exceptional contributions</td><td>The proposal was placed before BoG in its 33rd meeting held on 28 June 2023 and after approval the proposal for conferment of Honoris Causa Doctorate Degree to Eminent Personalities with</td></tr></table>	Item	Discussion Item	Senate Recommendation	34.2.1	Proposal of a new certificate cum postgraduate diploma in Next Generation OMICS Technologies and Applications, from Department of Bioscience and Bioengineering	Under progress	34.2.2	Proposal for New M. Tech. Programme in Quantum Technologies	Implemented; Development of detailed course content is under process and will be presents in next Senate meeting	34.2.3	Course curriculum for Master program in XR Design	Implemented; A detailed course curriculum will be placed in the ensuing Senate meeting	34.6.1	Recommendation for conferment of Honoris Causa Doctorate to the Eminent Personalities for their exceptional contributions	The proposal was placed before BoG in its 33rd meeting held on 28 June 2023 and after approval the proposal for conferment of Honoris Causa Doctorate Degree to Eminent Personalities with
Item	Discussion Item	Senate Recommendation														
34.2.1	Proposal of a new certificate cum postgraduate diploma in Next Generation OMICS Technologies and Applications, from Department of Bioscience and Bioengineering	Under progress														
34.2.2	Proposal for New M. Tech. Programme in Quantum Technologies	Implemented; Development of detailed course content is under process and will be presents in next Senate meeting														
34.2.3	Course curriculum for Master program in XR Design	Implemented; A detailed course curriculum will be placed in the ensuing Senate meeting														
34.6.1	Recommendation for conferment of Honoris Causa Doctorate to the Eminent Personalities for their exceptional contributions	The proposal was placed before BoG in its 33rd meeting held on 28 June 2023 and after approval the proposal for conferment of Honoris Causa Doctorate Degree to Eminent Personalities with														

		suggested names was forwarded to MoE, Gol for obtaining approval of the Visitor (Hon'ble President of India). In response, the MoE vide letter dated 05 October 2023 had conveyed the approval of the visitor.
--	--	--

35.2	Discussion Items										
35.2.1	Proposal for M. Tech., Post Graduate Diploma and Certifications in Data Engineering, from the School of Artificial Intelligence and Data Science.										
	<p>The School of Artificial Intelligence and Data Science proposed M. Tech. in Data Engineering offered from Semester I, AY 2023-24. The proposal was discussed in an all faculty workshop held on 14th July 2023. It was also discussed in the Academic Committee and ECS in its meetings held on 28th July 2023 and 17th, 25th August 2023 respectively. The Academic Committee reviewed the proposal and recommended the same.</p> <p>Dr. Dip Sankar Banerjee, School of Artificial Intelligence and Data Science, presented the proposal for M. Tech., Post Graduate Diploma and Certifications in Data Engineering before the Senate placed as Annexure-I. The Senate after detailed discussion recommended and approved the proposal for M. Tech., Post Graduate Diploma and Certifications in Data Engineering with a maximum of 10% relaxation in the eligibility criteria for students opting only for PGD and not willing to transition to the M.Tech. programme.</p> <p>The Senate further suggested aligning the program to the Institute's Academic calendar. The Chairman, Senate advised to create a provision for the approved courses for such programmes to also be available for regular students of the Institute. The Dean (DT) was requested to create provisions in the ERP to distinguish the programme duration and courses for both the types of students.</p> <p style="text-align: right;">Action: Head (AIDE) Dean (Digital Transformation)</p>										
35.2.2	Proposals for New Courses and specialization from various Departments/Schools/Centres										
	<table border="1"> <thead> <tr> <th>Particulars</th><th>Department/ IDRP/School/ Center</th><th>Annexure AP 35-4</th><th>Recommendation</th></tr> </thead> <tbody> <tr> <td>Proposal of new courses</td><td>Center for Emerging Technologies for Sustainable development</td><td>1. Corporate Social Responsibility and Sustainable Development Goals, Offered as elective of 700 lfor B. Tech (Final), MSc, M. Tech, PhD, Structure L-T-P [C] 3-0-0 (3)</td><td> <p>The 4 courses of the Center for Emerging Technologies for Sustainable development were presented by the Head, CETSD.</p> <p>The Senate advised the major changed in the course as under:</p> <p>(a) Linking of CSR and SDG is not reflected in the content;</p> <p>(b) A connection between</p> </td></tr> </tbody> </table>			Particulars	Department/ IDRP/School/ Center	Annexure AP 35-4	Recommendation	Proposal of new courses	Center for Emerging Technologies for Sustainable development	1. Corporate Social Responsibility and Sustainable Development Goals, Offered as elective of 700 lfor B. Tech (Final), MSc, M. Tech, PhD, Structure L-T-P [C] 3-0-0 (3)	<p>The 4 courses of the Center for Emerging Technologies for Sustainable development were presented by the Head, CETSD.</p> <p>The Senate advised the major changed in the course as under:</p> <p>(a) Linking of CSR and SDG is not reflected in the content;</p> <p>(b) A connection between</p>
Particulars	Department/ IDRP/School/ Center	Annexure AP 35-4	Recommendation								
Proposal of new courses	Center for Emerging Technologies for Sustainable development	1. Corporate Social Responsibility and Sustainable Development Goals, Offered as elective of 700 lfor B. Tech (Final), MSc, M. Tech, PhD, Structure L-T-P [C] 3-0-0 (3)	<p>The 4 courses of the Center for Emerging Technologies for Sustainable development were presented by the Head, CETSD.</p> <p>The Senate advised the major changed in the course as under:</p> <p>(a) Linking of CSR and SDG is not reflected in the content;</p> <p>(b) A connection between</p>								

			<p>business and CSR to be established; and</p> <p>(c) There are a lot of redundancy in the course content.</p>
Proposal of new courses	Center for Emerging Technologies for Sustainable development	2.Appropriate Technologies for Rural Sanitation offered as elective of 700 level for B. Tech (Final), MSc, M. Tech, PhD, Structure L-T-P [C] 3-0-0 (3)	<p>Senate advised the major changed on the Appropriate Technologies for Rural Sanitation-</p> <p>(a) Modules 2 and 3 can have more number of lectures to accommodate discussions on technological components; and</p> <p>(b) Design component and engineering challenge related to emerging technology can be added in the course</p>
Proposal of new courses	Center for Emerging Technologies for Sustainable development	3.Water Basics offered as elective of 700 level for B.Tech, M.Sc., MS, M.Tech, M.Tech-Ph.D., Ph.D., Structure L-T-P [C] 3-0-0 (3)	<p>In the course Water Basics, the Senate advised that</p> <p>(a) Course must have the academic rigorous and should not be a social campaign;</p> <p>(b) The content must be discussed with departments of Chemistry, Physics, Civil and Infrastructure Engineering and Chemical Engineering;</p> <p>(c) Title of the course to be reviewed; and</p> <p>(d) Water filtration technology to be included.</p>
Proposal of new courses	Center for Emerging Technologies for Sustainable development	4.Public Health and Climate Change offered as elective of 700 level B.Tech, M.Sc., MS, M.Tech, M.Tech-Ph.D., Ph.D., Structure L-T-P [C] 3-0-0 (3)	<p>Public Health and Climate Change- (a) Too many topics in the course content; and</p> <p>(b) Sustainability aspects to be reviewed.</p> <p>Further the Senate recommended that the modified courses be placed in the ensuing Senate meeting for consideration.</p>

	Proposal of new courses	Center for Technology Foresight and Policy (CTFP)	1. Foresight with Simulation Modeling and Analysis offered as elective of 700 level Structure L-T-P [C] 2-0-0 [2]	Head, CTFP presented the new courses proposed by the center before the Senate. The Senate after detailed discussion recommended the course Foresight with Simulation Modeling and Analysis.
	Proposal of new courses	Center for Technology Foresight and Policy (CTFP)	2. Smart Contracts for Logistics offered as elective of 700 level Structure L-T-P [C] 2-0-0 [2]	The Senate recommended reviewing the course <i>Smart Contracts for Logistics</i> with the Department of Computer Science & Engineering and Centre for Mathematical and Computational Economics, and present the course in the ensuing Senate Meeting.
	Proposal of new courses	Center for Technology Foresight and Policy (CTFP)	3. Socio Technical Systems: Complexity and Governance offered as elective of 700 level Structure L-T-P [C] 2-0-0 [2]	The Senate further suggested adding a module on Digital public infrastructure in the course <i>Socio Technical Systems: Complexity and Governance</i> . The credits can be redistributed accordingly for the consideration of the Senate in its next meeting.
	Proposal for new course Design Lab	Mechanical Engineering	1. Specialization Core course Design Lab offered as 700 level core for B.Tech (ME) / M.Tech (AMD) Structure L-T-P [C] 0-0-2 [2] with prerequisite of Mechanics of Solids, Finite Element Method	Head, Department of Mechanical Engineering presented the new course on Design Lab before the Senate. After a detailed discussion the Senate approved the proposal.
	Proposal of new courses	Computer Science and Engineering	1. Advanced Algorithm of structure L-T-P [C] 3-1-0 [4] Offered for B.Tech., M.Tech., Ph.D. (CSE, AI), M.Sc. (Maths) as Elective / Core Specialization with Prerequisite Design and Analysis of Algorithms, Maths for Computing (or Discrete	Head Department of CSE, presented all the new courses before the senate. The Senate after detailed discussion recommended and approved.

		Mathematics)	
Proposal of new courses	Computer Science and Engineering	2. Kernelization Department Computer Science and Engineering of Structure (L-T-P [C]) 3-0-0 [3] Offered for B.Tech., M.Tech., Ph.D. (CSE, AI), M.Sc. (Maths) as Elective with Prerequisite Maths for Computing, Design and Analysis of Algorithms	The Senate after detailed discussion recommended and approved.
Proposal of new courses	Computer Science and Engineering	3. Advanced Complexity Theory of Structure (L-T-P [C]) 3-0-0 [3] Offered for B.Tech., M.Tech., Ph.D. (CSE, AI), M.Sc. (Maths) as Elective Prerequisite Complexity Theory	The Senate after detailed discussion recommended and approved.
Proposal of new courses	Computer Science and Engineering	4. Computational Geometry of Structure (L-T-P [C]) 3-0-0 [3] Offered for B.Tech., M.Tech., Ph.D. (CSE, AI), M.Sc. (Maths) as Elective Prerequisite Design and Analysis of Algorithms, Maths for Computing	The Senate after detailed discussion recommended and approved.
Proposal of new courses	Computer Science and Engineering	5. Theoretical Machine Learning Of Structure (L-T-P [C]) 3-0-0 [3] Offered for B.Tech., M.Tech., Ph.D. (CSE, AI), M.Sc. (Maths) as Elective with Prerequisite Design and Analysis of Algorithms, Maths for Computing Antirequisite	The Senate after detailed discussion recommended and approved.
Proposal of new courses	Computer Science and	6. Computational Creativity	The Senate recommended and approved the course

		Engineering	of Structure (L-T-P [C]) 3-0-0 Offered for B. Tech, M.Tech, Ph.D. as Elective With Prerequisite Software Engineering, Artificial Intelligence, Data Structures and Algorithms, Maths for Computing	Computational Creativity without any prerequisites to make it available for all students.
Proposal of new courses	Computer Science and Engineering	7. Computer Systems Verification of Structure (L-T-P [C]) 3-0-0 [3] Offered for B.Tech., M.Tech., Ph.D. (CSE, AI), M.Sc. (Maths) as Elective Prerequisite Design and Analysis of Algorithms, Maths for Computing	The Senate recommended that the course Computer Systems Verification be reviewed and placed before the Senate for consideration.	
Proposal of new courses	Computer Science and Engineering	8. Geometric and String Data Structures of Structure (L-T-P [C]) 1-0-0 [1] Offered for B.Tech., M.Tech., Ph.D. (CSE, AI), M.Sc. (Maths) as Core Prerequisite Data Structures and Algorithms Antirequisite	The Senate after detailed discussion recommended and approved.	
New B.Tech. Specialization in Theoretical Computer Science	Computer Science and Engineering	Specialization in Theoretical Computer Science	Head Department of CSE, presented the New B.Tech. Specialization in Theoretical Computer Science before the Senate. The Senate after detailed discussion recommended and approved the Specialization in Theoretical Computer Science.	
Updates in course contents	Computer Science and Engineering	1. Fundamentals of Machine Learning (with fractals) Of Structure (L-T-P	Prof. Gaurav Harit, Head Department of CSE, presented the updates in course contents as recommended in	

			<p>[C]) 3-0-2 [4] Offered for Masters and PhD in NON-CS Programs as 700 level elective</p> <p>2. Theory of Computation of Structure (L-T-P [C]) (3-0-0 [3]) offered for B.Tech (CSE) with Prerequisite of Maths for Computing as 400 level core</p> <p>3. Maths for Computing of Structure (L-T-P [C]) (3-1-0 [4]) offered for B.Tech (CSE) as 200 level core</p> <p>4. Complexity Theory of Structure (L-T-P [C]) 3-0-0 [3] offered for B.Tech., M.Tech., Ph.D. (CSE, AI), M.Sc. (Maths) (CSE) as 700 level core with Prerequisite Design and Analysis of Algorithms, Maths for Computing (or Discrete Mathematics)</p> <p>5. Computer Organization and Architecture of Structure (L-T-P [C]) 3-0-2 [4] offered for B. Tech. CSE as 300 level compulsory (The existing name of this course is Computer Architecture (3-</p>	<p>the Academic Audit before the Senate.</p> <p>The Senate after detailed deliberation recommended the updates in the course content except the course content of Fundamentals of Machine Learning (with fractals). The content must reflect state-of-the-art and should be useful for students. The revised course content for Fundamentals of Machine Learning to be placed before the next senate meeting.</p>
--	--	--	--	--

			0-0). However, with the addition of a lab component, the name of the course has been revised to Computer Organization and Architecture and the credits have been increased from 3 to 4). This increase in 1 credit for this course will also increase the total requirement of Program Compulsory courses for the B.Tech. (CSE) Program by 1 credit.	
	Action: Concerned Heads Office of Academics			
35.2.3	Academic Audit of UG and PG Programs Annually/once in 2 years			
	Dean (Academics) presented the reports on Academic Audit of the following Department/School/Center before the Senate:			
	Department/ IDRP/School	Report	Recommendation	
	School of Liberal Arts	<p>The School proposed that the current pattern of bouquet courses in a discipline-specific style may be changed to accommodate more diverse courses in view of the change in the profile of the School. The School proposed to add more 400 level open elective courses in LA bouquet courses. This will add diversity in terms of course options for the students to take from each bouquet.</p> <p>The School proposed that in the M.Sc. CSS the prerequisite for Specialization Elective Economic Challenges and Data driven Approach course can be waived off.</p>	The Senate after detailed discussion recommended the changes suggested by the School of Liberal Arts.	

	<p>Electrical Engineering</p>	<p>The Department proposed Specialization electives and PG courses to be offered as UG PE / PG PE.</p> <p>Proposed list of PE for UG Students from Communication Stream:</p> <p>S. No. Course name L-T-P-C</p> <p>1 Wireless Communications 3-0-0</p> <p>2 MIMO Wireless Communications 3-0-0</p> <p>3 Machine Learning for Communications 3-0-0</p> <p>4 Design and Analysis of Communication Networks 3-0-2</p> <p>5 RF system design for communications 3-0-0</p> <p>6 Digital Communications Hands-On 1-0-2</p> <p>7 Optical Fiber Communications 3-0-0</p> <p>8 Optical Techniques for Communications 2-0-2</p> <p>Proposed List of PE for UG Students from Power Stream:</p> <p>1 Power System Reliability and Security 3-0-0</p> <p>2 Selected Topics in Distributed Generation 3-0-0</p> <p>3 Renewable Energy Systems 3-0-0</p> <p>4 Special Drives for Electric Vehicles 3-0-0</p> <p>5 Cyber-Physical Security in Smart Grid 3-0-0</p> <p>6 Plugin Electric Vehicles 3-0-2</p> <p>7 Power Quality 3-0-0</p> <p>8 Automotive Electronics Design 3-0-2</p> <p>9 Introduction to Smart Grid 3-0-0</p> <p>10 Power Systems Restructuring 3-0-0</p> <p>Proposed List of PE for UG Students from VLSI Stream:</p> <p>1. ML in VLSI CAD (3-0-0)</p> <p>2. Formal Verification (2-0-0)</p> <p>3. Hardware Software Co-design (3-0-2)</p> <p>4. Mixed Signal Circuit Design (2-0-2)</p> <p>5. Signal and Power Integrity (3-0-0)</p> <p>6. VLSI Broadband Communication Circuits (3-0-0)</p>	<p>The Senate after detailed discussion recommended the changes suggested by the Department of Electrical Engineering.</p>
--	--------------------------------------	--	--

	<p>7. VLSI Testing (2-0-0) 8. Digital VLSI Design (3-0-0)</p> <p>Proposed List of PE for M.Tech. (SIoT) Students: 1. In-Memory Computing (2-0-0) 2. Hardware for Artificial Intelligence (3-0-0) 3. Signal and Power Integrity (3-0-0) 4. Mixed Signal Circuit Design (2-0-2) 5. VLSI Broadband Communication Circuits (3-0-0) 6. Fundamentals of Machine Learning (3-0-2)</p> <p>Proposed List of PE for M.Tech. (ICS) Students; 1. Fundamentals of Machine Learning (3-0-2)</p>	
Mathematics	<p>No changes were proposed for M. Tech. (DCS) program</p> <p>Modification in M.Sc. (MA) program by changing the credits of the core course "Data Structures and Algorithms" from 3 credits to 2 credits and increasing 1 credit in the PE course in Semester 2.</p>	The Senate after detailed discussion recommended the changes suggested by the Department of Mathematics.
Computer Science & Engineering	<p>A. No changes in M. Tech. CSE and AI curriculum B. Updates to Course Contents: Fundamentals of Machine Learning CSL7XXX Theory of Computation CSL4XX Maths for Computing CSL2040 Complexity Theory CSL7140 Computer Organization and Architecture CSL3XX 3-0-2 (The existing name of this course is Computer Architecture (3-0-0). However, with the addition of a lab component, the name of the course has been revised to Computer Organization and Architecture and the credits have been increased from 3 to 4).</p> <p>C. Updates to the B. Tech. (CSE) Curriculum: The total number of Program</p>	The Senate after detailed discussion recommended the changes suggested by the Department of Computer Science and Engineering with the modification in the course content of Fundamentals of Machine Learning as stated in 35.2.2.

		<p>Compulsory credits have increased by 1 with the increase in the number of credits of the course Computer Organization and Architecture.</p> <p>D. Updates to the B.Tech. (AI) Curriculum: The total number of Program Compulsory credits have increased by 1 with the increase in the number of credits of the course Principles of Computer Systems - 1 (PCS - 1)</p> <p>Proposal for new B.Tech. Specialization on Theoretical Computer Science</p>	
	School of Management & Entrepreneurship	<p>SME proposed minor changes in Prerequisite (by removing prerequisite in 24 courses and adding prerequisite in 10 courses)</p> <p>Prerequisite removed:</p> <ol style="list-style-type: none"> 1 Leading High Performance Teams 2 Incentives and Performance 3 People Analytics and Intelligence 4 Strategic Human Capital 5 History and Business 6 Technology and Future of Work 7 Governance and Organization 8 Organizational Change and Transformation 9 Corporate Social Responsibility 10 Strategic Leadership 11 Negotiations 12 Persuasive Communication 13 Managerial Judgment and Decision Making 14 Designing and Leading Virtual Workplace 15 Digital Behavioral Dynamics 16 Culture of Tech 17 Communicating Digitally 18 Selected Topics in HR 19 Selected Topics in OB 20 Selected Topics in Marketing 21 Emerging Trends in Marketing 22 Service Operations Management 	<p>The Senate after detailed discussion recommended the changes suggested by the School of Management & Entrepreneurship.</p> <p>The Senate Further recommended as per the approved student entrepreneurship policy a detailed report should be presented in the upcoming Senate Meeting.</p>

	<p>23 Project Management 24 Advanced Operations Research</p> <p>Prerequisite Added:</p> <p>1 Consumer Behaviour 2 Integrated Marketing Communication 3 Sales and Distribution Management 4 Services Marketing 5 Strategic Brand Management 6 Strategic Marketing 7 Digital Marketing Analytics & Optimization 8 Pricing Analytics 9 B2B Marketing 10 Social Media Analytics</p>	
Mechanical Engineering	<p>The Following Changes were proposed from the Department of ME:</p> <p>1. Institute-wide B. Tech Courses offered by Dept. of ME</p> <p>Minor change in the course “Engineering Mechanics MEL1010” by removing the topic on Inertia Tensor as not all students have done linear algebra.</p> <p>2. B. Tech. Mechanical Programme Core offered by Dept.</p> <p>Minor change in the course “Control of Mechanical Systems MEL3080” by including State-space modelling in Part II since it is used in lab components.</p> <p>3. M.Tech TFE Programme Core Changes in the course “Incompressible Fluid Flow MEL7040”</p> <ul style="list-style-type: none"> • Flow stability part should be removed. • More emphasis on integral/control volume analysis • One credit tutorial may be added without any change in the total credit structure by decreasing one credit in program electives 	<p>The Senate after detailed discussion recommended the changes suggested by the Department of Mechanical Engineering.</p>

Bioscience and Bioengineering	<p>The Following Changes are proposed from the Department of BB:</p> <p>Changes in UG curriculum</p> <ul style="list-style-type: none"> • Computational methods for multi-omics (level 4) [3-0-0] changed to Computational methods for multi-omics (level 7) [2-0-2] • Introduction of New course - Agricultural Biotechnology [3-0-0] <p>Changes in PG curriculum</p> <p>A minor change was suggested for the compulsory M.Tech. course on Introduction to OMICS Technology for changing L-T-P structure from [2-0-0] to [3-0-0] without changing the course content- the overall credit structure remains intact in line with the regulations.</p>	<p>The Senate after detailed discussion recommended the changes suggested by the Department of Bioscience and Bioengineering.</p>
Chemistry	<p>Proposed Changes:</p> <ol style="list-style-type: none"> 1. Restructuring of CYP6060-Computational Chemistry Laboratory from 0-0-3 [1.5 credits] to 2-0-2 [3 Credits] without changing total credit requirements for graduation by dropping the CYD6010- Minor Project [1.5 Credits]. The proposed changes are consistent with the M.Sc. programs in Physics and Mathematics. 2. Reordering of CYP6060 Computational Chemistry Laboratory from Sem III to Sem-II and CYP6050 Hands on-II from Sem II to Sem-III 	<p>The Senate after detailed discussion recommended the changes suggested by the Department of Chemistry.</p>
<p>Further, the Dean (Academics) also apprised the concerns of academic audit meetings on first year students receiving a large number of C (-) grades and related stress factor among students.</p> <p>The Chairman, Senate instructed all HoDs to appoint one Faculty Advisor with the multiple small groups of students considering the number of students getting C (-) grade and below grades in the First years courses. The Chairman also advised HoDs to identify such students for monitoring and regular counseling. He particularly stressed upon careful monitoring of stress factors and facilitating the well-being of students.</p> <p>Also, the Senate recommended creating course materials in Hindi for all 1st year Courses after due verification by the Hindi Cell. The course material thus created is to be shared with the students. Moreover, a detailed report on Entrepreneurship projects, number of students in minors in Management and Entrepreneurship, implementation of Innovation and Entrepreneurship policy must also be submitted to the Senate in its next meeting. The Senate also deliberated on the communication and writing skills of PG students in addition to UG students and advised departments</p>		

	<p>to note the matter seriously and take appropriate actions.</p> <p>The Senate directed all HoDs to submit the detailed report on the same before the next Senate Meeting. The Senate also suggested Dean (Student Affairs) to share the basic guidelines for the Student Wellness to the HoDs. The recommendations of the Senate would be implemented by the Dean (Academics) and Dean (Student Affairs).</p> <p style="text-align: right;">Action: Dean (Academics)</p>
35.2.4	Proposal for detailed guidelines and regulations for the MS (R) Programs
	<p>Dean (Academics) presented the detailed guidelines and regulations for the MS (R) Programs before the Senate placed as Annexure-II.</p> <p>The Senate after detailed discussion recommended the proposal with the following recommendations:</p> <ol style="list-style-type: none"> 1. The regular MS by Research students can be in the Centres and CoE only; 2. The Department can admit MS by Research students supported by the R&D project; 3. The course work of 24 credits will be including the 4 NG credits; 4. The regular MS by Research students would get fellowship/assistantship up to a maximum of 2 years as JRF starting the date of registration; 5. The fellowship can be extended for 3rd year based on the satisfactory performance and progress of the student; and 6. Only one (01) MS by Research student can be allocated to a faculty. <p style="text-align: right;">Action: Dean (Academics)</p>
35.2.5	Proposal for confirmation of Undergraduate Degree title in Hindi
	<p>Dean (Academics) presented the bilingual Degree format for Undergraduate Degree of Minor and Specialization before the Senate placed as Annexure-III. The Senate after a detailed discussion on degree title in Hindi recommended the proposal with a minor change for the English word “Minor” as “लघु” in place of “गौण”.</p> <p style="text-align: right;">Action: Dean (Academics)</p>
35.2.6	Proposal for Exit path for B.S. Program
	<p>Dean (Academics) presented the Exit path for B.S. Program student in line with NEP 2020, who fail to complete 60 credits in 6 semesters can exit after completion of 110 credits (100 graded and 10 non-graded credits) where the students of B.S. Chemistry with specialization can exit the program through B.Sc. in Chemistry and The students of B.S. Physics with specialization can exit the program through B.Sc. in Physics</p> <p>The Senate after a detailed discussion approved the proposal.</p> <p style="text-align: right;">Action: Dean (Academics)</p>
35.2.7	Proposal and Guidelines for Instituting “Mrs. Krishna Devi Sanadhya Memorial Award”
	<p>Dean (Academics) presented the Proposal before the senate received from Prof. Somirta Kumar Sanadhya, Department of Computer Science & Engineering for an award for a female student of IIT Jodhpur in memory of his mother. The name of the award may be considered as “Mrs. Krishna Devi Sanadhya Memorial Award” in each Convocation. The award may consist of Rs. 50,000/- (Rs. Fifty thousand only) and a</p>

	<p>medal to honor the UG female student having the best academic performance from the Department of Computer Science & Engineering in the graduating batch. It is also proposed to put a corpus of Rs. 2,50,000 (Rs. Two lakh and fifty thousand) to begin with, and intent to keep replenishing it regularly so that the award may continue for many more years. Detailed Proposal and Guidelines are placed at Annexure-IV.</p> <p>The Senate after a detailed discussion recommended for implementation.</p> <p style="text-align: right;">Action: Dean (Academics) Dean (Students)</p>
35.2.8	Degree format for Honoris Causa Doctorate to Eminent Personalities on their exceptional contributions
	<p>Dean (Academics) presented the Degree format for Honoris Causa Doctorate to Eminent Personalities on their exceptional contributions before the Senate placed as Annexure-V. The Senate after a detailed discussion approved the same.</p> <p>The Senate suggested announcement of conferment of the degree during the Convocation and in case of the absence of the recipient, Degree will be physically conferred on a later date when the recipient visit the Institute.</p> <p style="text-align: right;">Action: Dean (Academics)</p>

35.3	Procedural Items
35.3.1	Recommendations to confer the Award of B.Tech., M.Sc., M.Tech., MBA, MBA-Technology, Masters in Medical Technologies, M.Sc.-M.Tech., and Ph.D. Degrees, PG Diploma/Certificate to students to students, who meet the various academic requirements.
	<p>Proposal for conferment of award of B.Tech., M.Sc., M.Tech., MBA, MBA-Technology, Masters in Medical Technologies, M.Sc.-M.Tech., and Ph.D. Degrees, PG Diploma/Certificate to students to students was presented by the Dean (Academic).</p> <p>The following students met all academic requirements for the award of the said degrees:</p> <ol style="list-style-type: none"> 314 students registered in the B.Tech.(CSE), B.Tech.(ME), B.Tech.(EE), and B.Tech.(BB) Programs; 92 students registered in the M.Sc.(CY), M.Sc.(DH), M.Sc.(MA) and M.Sc.(PH) Programs; 04 students registered in the M.Sc.-M.Tech. Program 282 students registered in the M.Tech.(BB), M.Tech.(CH), M.Tech.(AI), M.Tech.(CS), M.Tech.(CI-ENV), M.Tech.(CI-EN), M.Tech.(CPS), M.Tech.(IoT), M.Tech.(DCS), M.Tech. (AMD), M.Tech.(TFE) and M.Tech.(MT) Programs; 77 students registered in the MBA and MBA-Technology Programs. 06 students registered in the Masters in Medical Technologies Programs; 14 students registered in the Ph.D. Program. 20 students registered in the PG Diploma/Certificate. <p>Further the following B.Tech. students have met the requirements of the award of Minor/Specialization certificate.</p> <ol style="list-style-type: none"> 17 students (included in the list of B.Tech) registered for Minor/Specialization in Entrepreneurship, Management, Visual Computing, Artificial Intelligence and Robotics. <p>The complete list of the said 809 students is placed as Annexure VI.</p>

	<p>The Senate authorized the Chairman Senate for approval of degrees to B.Tech., M.Sc., M.Tech., MBA, MBA-Technology, Masters in Medical Technologies, M.Sc.-M.Tech., and Ph.D. students, and Diploma/Certificate to students in respective disciplines after detailed verification of names and various academic requirements by respective offices.</p> <p>For graduating students in Master's in Medical Technologies registered under the joint Degree programme of IIT Jodhpur and AIIMS Jodhpur, the Senate recommended that the Institute can invite these students on the 9th Convocation. In the proceedings of the Convocation, the HoD will read their names and announce that the Degree will be awarded during the convocation at AIIMS Jodhpur; students will rise from their seats.</p> <p>The Senate Authorized the Convocation Committee to decide the modalities of the upcoming 9th Convocation Ceremony. The Senate further recommended that names of graduates of Diploma/Certificate will be announced in Convocation and these students will get Diploma(s) / Certificate(s) from respective academic departments/units separately. The diploma students may be allowed to sit in the convocation Hall to participate in the Oath taking ceremony.</p> <p style="text-align: right;">Action: Dean (Academics)</p>
35.3.2	Academic Calendar for AY 2023-24 Sem II
	<p>Dean (Academics) presented the Academic Calendar for AY 2023-24 Sem II. The Senate after detailed discussion approved the Academic Calendar (placed at Annexure-VII) for AY 2023-24 Semester II.</p> <p style="text-align: right;">Action: Dean (Academics)</p>

35.4	Reporting, Adopting and Noting Items
35.4.1	Academic recommendations of 29th ECS Meeting held on 17 and 25 August, 2023
	<p>The Senate accepted the academic recommendation of the 29th ECS meeting held on 17 and 25 August, 2023.</p> <p style="text-align: right;">Action: All Heads/Concerned</p>


35.5	Ratification Items
35.5.1	Approvals accorded by the Chairman, Senate
	<p>The Senate ratified the approvals accorded by the Chairman, Senate on behalf of the Senate, as presented in the Agenda.</p>

35.6	Any other Item with the prior permission of the Chairman
35.6.1	Suggestions on report proposing transformative reforms to strengthen the periodic assessment and accreditation of all Higher Educational Institutions (HEIs) of India submitted by the overarching committee constitute by the MoE
	<p>The Chairman Senate presented the report proposing transformative reforms for strengthening the periodic assessment and accreditation of all HEIs of India submitted by the overarching committee constituted by the MoE before the Senate. The Senate after detailed discussion recommended that all the Members of the Senate submit the inputs to the Registrar and based on the inputs received, the comments will be shared with the MoE.</p>

35.6.2	IIT Jodhpur's Digital Health Initiatives for Equitable Healthcare: A Proposal on Capacity Building'
	<p>Dr. Indranil Banerjee, Department of Bioscience and Bioengineering presented the proposal on Digital Health Initiatives for Equitable Healthcare on Capacity Building before the Senate placed as Annexure-VIII. The Senate after detailed discussion recommended and in-principle approved the proposal on Capacity Building as part of the National Digital Health Mission. The Detailed program structure with curriculum and course content will be placed in the ensuing meeting of the Senate.</p> <p style="text-align: right;">Action: Dr. Indranil Banerjee</p>
35.6.3	Proposal for Degree format of M.Sc.-M.Tech. Dual Degree Programme
	<p>Dean (Academics) presented the Degree format of M.Sc.-M.Tech. Dual Degree Programme before the Senate. The Senate after a detailed discussion approved the Degree format placed as Annexure-IX.</p> <p style="text-align: right;">Action: Dean (Academics)</p>

The meeting concluded with thanks to the Chairman and all members.


 (Dr. Somnath Ghosh)
 Offg. Registrar & Secretary, Senate 21/11/23

Approved 
 (Prof. Santanu Chaudhury)
 Director & Chairman, Senate IIT Jodhpur