



Indian Institute of Technology Indore

Minutes of the 34th meeting of the Senate held on 12 May 2023 (Friday), 3.00 p.m. at Maitreyi Seminar Hall, IIT Indore.

Following members attended the meeting:

Chairperson

- 1 Professor Suhas S. Joshi Director, IIT Indore

External Experts

- 2 Shri Shankar V. Nakhe (present online) Director, RRCAT
- 3 Prof. Ajay Kumar Jain (present online) Professor, Management Development Institute, Gurgaon

Deans

- 4 Prof. Devendra Deshmukh Dean, Academic Affairs
- 5 Prof. Manish Kumar Goyal Dean, Infrastructure Development
- 6 Prof. Avinash Sonawane (present online) Dean, International Relation
- 7 Prof. I. A. Palani (present online) Dean, Research and Development

Head of Departments

- 8 Prof. Abhirup Datta HOD, Astronomy, Astrophysics and Space Engineering
- 9 Dr. Somnath Dey HOD, Computer Science and Engineering
- 10 Prof. Vivek Kanhangad HOD, Electrical Engineering
- 11 Prof. Dhinakaran Mechanical Engineering
- Shanmugam (present online)
- 12 Dr. Ajay Kumar Kushwaha HOD, Metallurgical Engineering and Materials Science
- 13 Dr. Vijay Kumar Sohani Acting HOD, Mathematics
- 14 Prof. Pankaj R. Sagdeo HOD, Physics
- 15 Prof. Biswarup Pathak Acting HOD, Chemistry
- 16 Prof. Ruchi Sharma (present online) HOS, Humanities and Social Science

Professors

17	Prof. Narendra S. Choudhary (present online)	Computer Science and Engineering
18	Prof. Neelesh Kumar Jain	Mechanical Engineering
19	Prof. Biswarup Pathak (present online)	Chemistry
20	Prof. Apurba K. Das	Chemistry
21	Prof. Sanjay Kumar Singh (present online)	Chemistry
22	Prof. Neelima Devarakonda Satyam (present online)	Civil Engineering
23	Prof. Aruna Tiwari (present online)	Computer Science and Engineering
25	Prof. Kapil Ahuja (present online)	Computer Science and Engineering
26	Prof. Vipul Singh (present online)	Electrical Engineering
27	Prof. Trapti Jain	Electrical Engineering
28	Prof. Pritee Sharma	Humanities and Social Science
29	Prof. Ruchi Sharma (present online)	Humanities and Social Sciences
30	Prof. Sk. Safique Ahmad	Mathematics
31	Prof. Santosh Kumar Sahu	Mechanical Engineering
32	Prof. Ritunesh Kumar	Mechanical Engineering
33	Prof. Sarika Jalan	Physics
34	Prof. Rajesh Kumar	Physics
35	Prof. Sudeshna Chattopadhyay	Physics
36	Prof. Nirmala Menon (present online)	HOS, Humanities and Social Science

Other Authorities

37	Dr. Anand Petare	Workshop Superintendent, Central Workshop
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Special Invitees

38	Dr. Eswara Prasad Korimilli	Associate Dean, Academic Affairs (PG and Ph.D.)
39	Pr. Pavan Kumar Kankar	Acting Professor-In-Charge, Centre for Rural Development and Technology
40	Dr. Indrasen Singh	Professor-In-Charge, Center of Futuristic Defense and Space Technology
41	Mr. Rajesh Kumar	Assistant Librarian
42	Mr. Neeraj Kumar	Assistant Registrar, Academic Affairs
43	Mr. Tapesh Parihar	Superintendent, Academic Office

Secretary

44	Mr. S. P. Hota	Registrar, IIT Indore
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Leave of absence:

1	Prof. Himanshu Rai	Director, IIM Indore
2	Mr. B Anil Baliga	Ex Executive Vice President, VE Commercial Vehicles Ltd,
3	Prof. Abhiram G. Ranade	Professor, Department of Computer Science and Engineering, IIT Bombay
4	Prof. Sandeep Chaudhary	Dean, Administration
5	Prof. Anand Parey	Dean, Resources Generation
6	Prof. Srivathsan Vasudevan	Dean, Student Affairs
7	Prof. Abhishek Srivastava	Dean, Faculty Affairs
8	Dr. Abhishek Rajput	HOD, Civil Engineering
9	Prof. Amit Kumar	HOD, Biosciences and Biomedical Engineering
10	Dr. Jayaprakash Murugesan	Chief Warden
11	Dr. Sharad Gupta	Convener, Health Center Advisor Committee
12	Prof. G. S. Murthy	Biosciences and Biomedical Engineering
13	Prof. Rajneesh Misra	Chemistry
14	Prof. Suman Mukhopadhyay	Chemistry
15	Prof. Prabhat Kumar Upadhyay	Electrical Engineering
16	Prof. Abhinav Kranti	Electrical Engineering
17	Prof. Amod Umarikar	Electrical Engineering
18	Prof. Mukesh Kumar	Electrical Engineering
19	Prof. Ram Bilas Pachori	Electrical Engineering
20	Prof. Vimal Bhatia	Electrical Engineering
21	Prof. Santosh Kumar Vishvakarma	Electrical Engineering
22	Prof. Shaibal Mukherjee	Electrical Engineering
23	Prof. Bhupesh Kumar Lad	Mechanical Engineering
24	Prof. Prashant Kodgire	Biosciences and Biomedical Engineering
25	Prof. Parasharam Maruti Shirage	Metallurgy Engineering and Materials Science
26	Prof. Preeti Anand Bhobe	Physics
27	Prof. Subhendu Rakshit	Physics
28	Prof. Krushna R. Mavani	Physics
29	Prof. Sampak Samanta	Chemistry
30	Prof. Swadesh Kumar Sahoo	Mathematics
31	Prof. Raghunath Sahoo	Physics
32	Prof. Somaditya Sen	Physics
33	Prof. Ankhi Roy	Physics
34	Prof. Shaikh M. Mobin	Chemistry
35	Prof. Anjan Chakraborty	Chemistry



ITEM 34.1: Welcome and Opening remarks by the Chairman of the Senate.

The Chairman, Senate welcomed all the members and special invitees to the meeting.

He also welcomed the new members of the Senate by the virtue of their positions:

Prof. Dhinakaran Shanmugam	:	Appointed as new Head, Mechanical Engineering
Dr. Ajay Kumar Kushwaha	:	Appointed as new Head, Metallurgical Engineering and Materials Science
Prof. Ruchi Sharma	:	Appointed as new Head, Humanities and Social Sciences
Prof. Tushar Kanti Mukherjee	:	Appointed as new Head, Chemistry and Professor
Prof. Pankaj R. Sagdeo	:	Appointed as Professor
Prof. Somaditya Sen	:	Appointed as Professor
Prof. Ankhi Roy	:	Appointed as Professor
Prof. Shaikh M. Mobin	:	Appointed as Professor
Prof. Anjan Chakraborty	:	Appointed as Professor

He apprised the members about the feedback was received during the interaction with passing-out students. The undergraduate students want more elective courses. They also want to pursue Minor Programme in the core engineering branches, especially in the Computer Science and Engineering.

The Chairman, Senate informed that Board of Governors has approved the proposal to establish the Department of Chemical Engineering. Accordingly, recruitment for the new department can be initiated.

ITEM 34.2: Confirmation of the minutes of the 33rd Meeting of Senate held on 20 March 2023.

The Senate confirmed the Minutes of its 33rd Meeting of Senate held on 20 March 2023.

ITEM 34.3: Action Taken Report (ATR) on minutes of 33rd Meeting of Senate held on 20 March 2023.

The Senate noted the actions taken on the decisions of the 33rd Meeting of Senate held on 20 March 2023

ITEM 34.4: Proposal of new Ph.D. programs:

- 34.4.1: Ph.D. program by Center for Electric Vehicle and Intelligent Transport Systems (CEVITS).



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- 34.4.2: Ph.D. program by Center of Futuristic Defense and Space Technology (CFDST).
- 34.4.3: Ph.D. program by Center for Rural Development and Technology (CRDT).

The Senate discussed the proposal and course structures for the above programs and approved. These programs will start from the AY 2023-24:

- **34.4.1: Ph.D. program by Center for Electric Vehicle and Intelligent Transport Systems (CEVITS):** Head, Center for Electric Vehicle and Intelligent Transport Systems, presented the course structure of Ph.D. Programme in Electric Vehicle Technology. The Senate deliberated on the course structure and approved the same with following observations:
 - This program will be offered only for Non-TA categories of the admission.
 - Option for Full-Time or Part-Time admission should be mentioned specifically with each category of admission.
 - Admission to this program will be open for Indian as well as for international candidates.
 - With approval of Ph.D. Programme in the Electric Vehicle Technology, the option of pursuing M.Tech.+Ph.D. Dual Degree in Electric Vehicle Technology will also be available for the students admitted to the M.Tech. in Electric Vehicle Technology.

Course Structure of Ph.D. Program in Electric Vehicle Technology by Center of Electric Vehicles and Intelligent Transportation Systems (CEVITS) (from AY 2023-24)

Minimum Educational Qualifications (MEQs): Masters' degree (with first division as defined by the awarding Institute/ University) in the relevant areas of Engineering/Sciences (Mechanical Engineering/Technology- Machine/system design/ Thermal Engineering/ Heat Power/Energy Materials/ Fluids & Thermal Engineering/ Manufacturing Engineering/ Industrial Engineering/ Production Engineering/ Reliability Engineering/ CAD/CAM/ Automobile Engineering; Metallurgical Engineering/ Material Science and Engineering/ Nanotechnology/ Nanotechnology/ Ceramics Engineering/ Chemical Engineering; Electrical/Electronics/ Electronics & Communication/ Instrumentation and Control Engineering/ Communications & signal processing/ VLSI/ Nanoelectronics/Image processing/ Speech processing/ RF-Microwave/ Power electronics/ Power systems / Control systems; Computer Science Engineering/ Information Technology/ Software Engineering/ Data Science/ Data Analytics; Transportation Engineering/ Aerospace Engineering/Space Engineering/ Aeronautics, Physics, Chemistry, Mathematics). *(Relaxation of 5% in CPI/ CGPA/ Percentage of the qualifying degree is applicable for Indian applicants belonging to SC, ST and PwD categories)*

Categories of Admission:

For Indian Students	For International Students
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FA (Fellowship Awardee): Fellowship Awardees from the funding agencies such as CSIR/ UGC/ DBT/ NBHM/ DST/ equivalent OR equivalent Fellowship position in an externally funded project under a faculty member of CFDST. The scholarship will be as per the rules of the concerned funding agency. Full Time	ISF (International Self-Finance) Self-Financing Students. Full Time
SW (Sponsored WITHOUT Institute scholarship): For applicants sponsored by a highly reputed R&D organization or Industry. [After completion of required coursework, either on Full Time (SWF) or Part Time (SWP) basis, with approval of the competent authority]	ISW (International Sponsored by Industry or NGO) (i) Industry Sponsorship (ii) NGO (Non-Government Organization) Sponsorship Full Time
DF (Defense Forces): Serving defense forces personnel WITHOUT any scholarship from the Institute. [After completion of required coursework, either on Full Time (SWF) or Part Time (SWP) basis, with approval of the competent authority]	GSW (International Sponsored by Government organization) (i) ICCR Scholarship of Government of India (ii) Foreign Government Sponsorship Full Time
CT (College Teacher): Permanent Employee of the sponsoring College/Institute/University WITHOUT any scholarship from the Institute. Full Time and Part Time	
IS (Institute Staff): Only for regular staff members of IIT Indore Part Time.	

Candidates will not be provided any scholarship for this program from IIT Indore.



Course Structure for Ph.D. Program in CEVITS

(A) Semester-I (autumn / spring)

S. no.	Course code	Course Title	L-T-P-Credits
1	ZZ xxx	Elective-I	x-x-x-3
2	ZZ xxx	Elective-II	x-x-x-3
3	ZZ xxx	Elective-III	x-x-x-3
4	EV 797* / EV 798*	Ph.D. Seminar Course	0-2-0-2

(B) Semester-II (autumn / spring)

S. no.	Course code	Course Title	L-T-P-Credits
1	ZZ xxx	Elective-I	x-x-x-3
2	ZZ xxx	Elective-II	x-x-x-3
3	ZZ xxx	Elective-III	x-x-x-3
4	EV 797* / EV 798*	Ph.D. Seminar Course	0-2-0-2

Note:

1. A Ph.D. student having M.Tech./ME/MPhil qualification has to complete at least two courses with a total minimum credit of 6. In addition, one Ph.D. seminar course needs to be completed by the applicant.
2. A Ph.D. student having M.Sc. or equivalent qualification has to complete 6 to 8 Ph.D. level courses of at least 3 credits each and 1-2 Ph.D. seminar courses of at least 2 credits each. The minimum number of courses will be 6 Ph.D. level courses and one Ph.D. seminar course (minimum coursework of 20 credits).

* Ph.D. Seminar course can be taken either in Autumn or in Spring Semester or both as suggested by the Faculty Advisor/Thesis Supervisor.

Courses for the Electives-I to VI: A student can opt from the PG courses being offered by any School/ Department/ Centre of IIT Indore as suggested by thesis supervisor.

- **34.4.2: Ph.D. program by Center of Futuristic Defense and Space Technology (CFDST):** Professor-In-Charge, Center of Futuristic Defense and Space Technology (CFDST) presented the course structure of Ph.D. in Defense Technology by Center of Futuristic Defense and Space Technology (CFDST). The Senate discussed and approved the program with following observations:

- This program will be offered only for admission categories of the Defense Forces (DF) and Sponsored Category (SW).
- Admission to this program will be open only for Indian candidates.
- As per the discussion with Defense Research and Development Organisation (DRDO), the proposed course structure was for the Post-Graduate candidates in Engineering and Technology. However, the Senate suggested the Professor in



charge, CFDST, to discuss with defense organizations and explore the possibility to allow Post-Graduate candidates in Science stream to apply for the said programme.

- The students should have option to do the programme either in Online or Offline mode.
- Student should have an option of doing online courses from National Programme on Technology Enhanced Learning (NPTEL) as Audit.
- With approval of Ph.D. Programme in the Defense Technology, the option of pursuing M.Tech.+Ph.D. Dual Degree in Defense Technology will also be available for the students admitted to the M.Tech. in Defense Technology.

Course Structure of Ph.D. Program in Defense Technology by Center of Futuristic Defense and Space Technology (CFDST) (from AY 2023-24)

Minimum Educational Qualification: Masters' degree (with first division as defined by the awarding Institute/ University) in the relevant areas of Engineering (Mechanical Engineering/Technology- Machine/system design/ Thermal Engineering/Heat Power/Energy Materials/Fluids & Thermal Engineering/Manufacturing Engineering/Industrial Engineering/Production Engineering/Reliability Engineering/CAD/CAM/Automobile Engineering; Metallurgical Engineering/Material Science and Engineering/Nanotechnology/Nanotechnology/Ceramics Engineering/Chemical Engineering; Electrical/Electronics/Electronics & Communication/Instrumentation and Control Engineering/Communications & signal processing/VLSI/Nanoelectronics/Image processing/Speech processing/RF-Microwave/Power electronics/Power systems/Control systems; Computer Science Engineering/Information Technology/Software Engineering/Data Science/Data Analytics; Civil Engineering/Structural Engineering/Water & Hydrology; Aerospace Engineering/Space Engineering/ Aeronautics). *(Relaxation of 5% in CPI/ CGPA/ Percentage of the qualifying degree is applicable for Indian applicants belonging to SC, ST and PwD categories)*

Qualifying Examination: Minimum two years of post-PG experience in Defence Laboratory/ ISRO/ Defense Industry/ Equivalent limited associated industry.

Categories of Admission:

Indian Students: Only for Highly motivated sponsored candidate (SW) from highly reputed defense R & D organizations such as DRDO, ISRO, BHEL, ADE, ADA, etc. and highly reputed defense Industries; (ii) Defense Forces (DF): Candidates sponsored by the Defense Forces.



Course Structure of 2-Year Full Time Ph.D. Program in Defense Technology

(A) Semester-I (autumn / spring)

S. no.	Course code	Course Title	L-T-P-Credits
1	ZZ xxx	Elective-I	x-x-x-3
2	ZZ xxx	Elective-II	x-x-x-3
3	DT 797*/ DT 798*	Ph.D. Seminar Course	0-2-0-2

Note:

1. A Ph.D. student having M.Tech./ME/MPhil qualification has to complete at least two courses with a total minimum credit of 6. In addition, one Ph.D. seminar course needs to be completed by the applicant.

* Ph.D. Seminar course can be taken either in Autumn or in Spring Semester or both as suggested by the Faculty Advisor/Thesis Supervisor.

Courses for the Electives-I to VI: A student can opt from the PG courses being offered by any School/ Department/ Centre of IIT Indore as suggested by thesis supervisor.

- **34.4.3: Ph.D. program by Center for Rural Development and Technology (CRDT):** Acting Professor-In-Charge, Center for Rural Development and Technology (CRDT) presented the course structure of Ph.D. in Rural Development and Technology by Center for Rural Development and Technology (CRDT). The Senate discussed and approved the program with following observations:

- This program will be offered only for Non-TA categories of the admission.
- Option for Full-Time or Part-Time admission should be mentioned specifically with each category of admission.
- Admission to this program will be open for Indian as well as for international candidates.
- 2 and 3 level UG courses should not be offered as elective for Ph.D. programme.

Course Structure for Ph.D. Program in Rural Development and Technology by Centre for Rural Development and Technology (CRDT) (w.e.f. AY 2023-24)

Minimum Educational Qualifications (MEQs): Masters' degree in Science or Engineering or Humanities and/or Social Sciences (Mechanical/ Metallurgical/ Electronics / Electrical / Physics / Engineering Physics/ Mathematics / Statistics/ Microelectronics / Instrumentation / VLSI Design / Embedded System / Optoelectronics / Materials Science and Engineering / Nanotechnology / Energy Science and Engineering / Laser Technology / Tele Communication / Chemistry/ Mechatronics / Microwave Engineering / Biotechnology / Biological Sciences / Structural Engineering / Construction Management / Economics / Agricultural Economics / Political Science / Development Economics / Forest Economics /



Environmental Science / Geography / Instrumentation and Controls / Environmental geotechnics / Space Engineering/ Geotechnical engineering / Engineering (Any Stream) (with first division as defined by the awarding Institute/ University)

Categories of Admission:

For Indian Students	For International Students
FA (Fellowship Awardee): Fellowship Awardees from the funding agencies such as CSIR/ UGC/ DBT/ NBHM/ DST/ equivalent OR equivalent Fellowship position in an externally funded project under a faculty member of CRDT. The scholarship will be as per the rules of the concerned funding agency. Full Time	ISF (International Self-Finance) Self-Financing Students. Full Time
SW (Sponsored WITHOUT Institute scholarship): For applicants sponsored by a highly reputed R&D organization or Industry. [After completion of required coursework, either on Full Time (SWF) or Part Time (SWP) basis, with approval of the competent authority]	ISW (International Sponsored by Industry or NGO) (i) Industry Sponsorship (ii) NGO (Non-Government Organization) Sponsorship Full Time
DF (Defense Forces): Serving defense forces personnel WITHOUT any scholarship from the Institute. Full Time and Part Time	GSW (International Sponsored by Government organization) (i) ICCR Scholarship of Government of India (ii) Foreign Government Sponsorship Full Time
CT (College Teacher): Permanent Employee of the sponsoring College/Institute/University WITHOUT any scholarship from the Institute. Full Time and Part Time	
IS (Institute Staff): Only for regular staff members of IIT Indore (Part Time).	

Semester-I (Autumn / Spring)

Sr. No.	Course code	Course Title	L-T-P-Credits
1	ZZ xxx	Elective-I	x-x-x-3
2	ZZ xxx	Elective-II	x-x-x-3
3	ZZ xxx	Elective-III	x-x-x-3



4	RDT 797*/ RDT798*	Ph.D. Seminar Course	0-2-0-2
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Semester-II (Autumn / Spring)

Sr. No.	Course code	Course Title	sL-T-P-Credits
1	ZZ xxx	Elective-IV	x-x-x-3
2	ZZ xxx	Elective-V	x-x-x-3
3	ZZ xxx	Elective-VI	x-x-x-3
4	RDT798*/ RDT797*	Ph.D. Seminar Course	0-2-0-2

CRDT Courses for Elective I -VI (In addition to these courses, a student can also choose from the Ph.D. courses being offered by the other disciplines.)

Sr. No.	Course code	Course Title	L-T-P-Credits
1	CH 701	Spectroscopic Techniques.	2-1-0-3
2	EE 622 / EE 422	Digital Circuit Design	2-1-0-3
3	EE 440/640	Analog and Mixed Signal IC Design	2-1-0-3
4	BSE 628	Genomics and Proteomics	2-1-0-3
5	BSE 606	Molecular Virology and Viral Pathogenesis	2-1-0-3
6	ME 434/634	Principles of Product Design	2-1-0-3
7	ME 436/636	Dynamics and Control Systems	2-1-0-3
8	CH 711	Bio-Organic and Medicinal Chemistry	2-1-0-3
9	HS 618	Sustainability Studies	2-1-0-3
10	HS 601	Research Methods in Social Sciences	2-1-0-3
11	HS 626	Environmental and Natural Resource Economics	2-1-0-3
12	HS 600	Data Analysis and Technical Writing	2-1-0-3
13	EE 420/620	IC Fabrication Technology	2-1-0-3
14	EE 429/629	Nanotechnology and Nanoelectronics	2-1-0-3
15	BSE 624	Bioprocess Engineering and Technology	2-1-0-4

NOTE:

- 1) A Ph.D. student having M.Tech./ME/MPhil qualification has to complete at least two courses with a total minimum credit of 6. In addition, one Ph.D. seminar course needs to be completed by the applicant.
- 2) A Ph.D. student having M.Sc. or equivalent qualification has to complete 6 to 8 Ph.D. level courses of at least 3 credits each and 1-2 Ph.D. seminar courses of at least 2 credits each. The minimum number of courses will be 6 Ph.D. level courses and one Ph.D. seminar course (minimum coursework of 20 credits).

* Ph.D. Seminar course can be taken either in Autumn or in Spring Semester or both as suggested by the Faculty Advisor/Thesis Supervisor.

ITEM 34.5: Syllabi of the newly approved PG programs:

Minutes, 34th Meeting of the Senate



- 34.5.1: M.Tech. in Defense Technology
 - 34.5.2: M.Tech. in Water, Climate and Sustainability
- **34.5.1: M.Tech. in Defense Technology:** Professor-In-Charge, Center of Futuristic Defense and Space Technology (CFDST) presented the syllabus of the following core courses pertaining to the M.Tech. in Defense Technology. The Senate discussed and approved the syllabus with the following remarks mentioned against the course title:

S. No.	Course code and Title of the course	Contact Hours (L-T-P-C)	Remarks
1	DT 601: Engineering Mathematics	2-1-0-3	• Approved
2	DT 603: Design of Experiments and Case Studies	1-2-0-3	• Approved as revised title "Design of Experiments through Case Studies".
3	DT 651: Systems Design Engineering Laboratory	0-1-4-3	• Approved as revised title "Systems Design Laboratory".

- **34.5.2: M.Tech. in Water, Climate and Sustainability:** Prof. Manish Kumar Goyal presented the syllabus of the following core courses pertaining to the M.Tech. in Water, Climate and Sustainability. The Senate discussed and approved the syllabus with the following remarks mentioned against the course title:

S. No.	Course code and Title of the course	Contact Hours (L-T-P-C)	Remarks
1	AA 481/ AA 681: Introduction to Climate and Climate Change	2-0-0-2	• Approved
2	CE 621: Water Quality and Treatment	2-0-2-3	• Approved

The Senate discussed the above courses and approved its syllabus.

ITEM 34.6: Syllabi of courses for B.Tech. 1st year as per the revised UG curriculum w.r.t. the NEP guidelines.

Dean, Academic Affairs, presented the syllabus of the following courses pertaining to the B.Tech. first year. The Senate discussed and approved the syllabus with the following common remarks:

- Textbooks to be reduced to one, rest books should be mentioned in Reference Books.
- Syllabus should be concise with important topics, rather mentioning everything in the syllabus.
- Nomenclature of the courses should be only Core or Elective, instead of Institute Elective or Flexi Elective.



- Topics of the syllabus should be separated with bullets instead of numbers.
- The Senate emphasizes that Institute is giving option to students for choosing elective courses in the first year itself, which is a welcome move. This must be publicized to the prospective students.

S. No.	Course code	Title of the course	Contact Hours (L-T-P-C)	Type of the course	Remarks by the Senate
1	EE 1XX	Basic Electrical Engineering	1-1-0-2	Core	• Approved
2	EE 1XX	Basic Electronics Engineering	1-0-0-1	Elective	• Approved
3	ME 1XX	Basic Manufacturing Processes	1-0-0-1	Elective	• Approved
4	ME 1XX	Engineering Mechanics	2-0-0-2	Core	• Approved
5	ME 1XX	Basic Thermal Engineering	1-0-0-1	Elective	• Approved
6	PH 1XX	Basics of Laser Engineering	1-0-0-1	Elective	• Approved
7	PH 101	Basics of Physics	2-1-0-3	Core	• Approved
8	PH 156	Physics Lab- I	0-0-2-1	Core	• Approved
9	BSE 102	Biosciences	2-1-0-3	Core	• Approved
10	MA 105 (A)	Calculus-I	3-1-0-2 (=4/2) (half Semester)	Core	• Approved
11	MA 105 (B)	Calculus-II	3-1-0-2 (=4/2) (half Semester)	Core	• Approved
12	MA 106 (A)	Linear Algebra	2-1-0-1.5 (=3/2) (half Semester)	Core	• Approved
13	MA 106 (B)	Differential Equations-I	2-1-0-1.5 (=3/2) (half Semester)	Core	• Approved
14	CH 153	Chemistry Lab	0-0-2-1	Core	• Approved
15	ES 1XX	Environmental Studies: Scientific	2-1-0-1.5 (3/2)	Core	• Approved



		and Engineering Aspects	(half Semester)		
16	HS 1XX	Language and Composition	2-0-0-2	Core	• Approved
17	HS 108	Fundamentals of Economics	2-0-0-2	Core	• Approved
18	HS 1XX	Stress and Mental Health	1-0-0-1	Elective	• Approved
19	HS 1XX	Frontiers of Thinking	1-0-0-1	Elective	• Approved
20	HS 1XX	History of Tribal and Folk Art	1-0-0-1	Elective	• Approved
21	HS 1XX	Cultural Sociology	1-0-0-1	Elective	• Approved
22	HS 1XX	Environmental Studies: Social Aspects	2-1-0-1.5 (3/2) (half Semester)	Core	• Approved
23	AA101	Introduction to Space Engineering	1-0-0-1	Elective	• Approved
24	CE 1XX	Computations in Civil Engineering	1-0-0-1	Elective	• Approved
25	IC 1XX	Makerspace	1-0-6-4	Core	• Instead of giving course code as 'Institute Core', it should be "MS" for Makerspace.
26	MM 1XX	Introduction to Materials Engineering	1-0-0-1	Elective	• Approved

ITEM 34.7: Proposal for Executive M.Tech. in Electric Vehicle Technology for VE Commercial Vehicles Ltd.

The Senate discussed the proposal for Executive M.Tech. in Electric Vehicle Technology for VE Commercial Vehicles Ltd. Senate approved the same with following remarks:

- This programme will be offered in online mode.

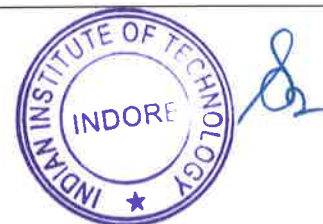
ITEM 34.8: Proposal of new courses.

The Senate discussed and approved the syllabus with the following remarks mentioned against the course:



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S. No.	Course Code and Title of the Course	Contact Hours	Program for which course is offered	Remarks by the Senate
1	EE 455/ EE 655: Optical Wireless Communications	2-1-0-3	UG/ PG/ Ph.D.	Approved
2	CH 615: Strategies for Organic Synthesis	2-1-0-3	Ph.D.	- Include some books, papers, references by Dr. Karl Barry Sharpless, American chemist and Nobel prize winner on Click Chemistry. - Approved
3	BSE 630: Drug Discovery, Design, and Development	2-1-0-3	PG/ Ph.D.	- Textbooks and Reference Books to be mentioned separately. - Approved
4	MM 605: Green Hydrogen: Materials and Technologies	2-1-0-3	PG/ Ph.D.	- Course syllabus should be submitted in the new format. - This course should be cross-listed for UG programmes too. - Approved
5	CS 635/ CS 435: Deep Learning	2-0-2-3	UG/ PG/ Ph.D.	- Remove module numbers from the syllabus, rather bullets may be used. - Approved
6	HS 321: History of Modern Indian Business	2-1-0-3	UG	Approved
7	HS 682: Medical Humanities: Texts and Contexts	3-0-0-3	PG/ Ph.D.	Approved
8	HS 481/ HS 681: Language, Mind and Society	3-0-0-3	UG/ PG/ Ph.D.	Approved



ITEM 34.9: Any other item with the permission of the Chair.

34.9.1: Name of Makers Bhavan and Tinkers Lab in honor of Prof. Deepak B. Phatak.

Chairman, Senate, informed that an MOU is signed between Maker Bhavan Foundation (a charitable foundation by alumni of IIT Bombay) and IIT Indore for setting up the Tinkerers Laboratory under Makerspace Project. As per the wish of the donors, the name of the lab will be in honor of our present BoG Chairperson, Prof. Deepak B. Phatak.

The committee agreed and accepted the proposal.

34.9.2: Thanks giving to outgoing Dean, Academic Affairs

Chairman, Senate informed that the tenure of Prof. Devendra Deshmukh in capacity of Dean, Academic Affairs is going to be over at the end of May 2023. He thankfully acknowledged the valuable contribution rendered by Prof. Deshmukh for the academic growth of the Institute as Dean, Academic Affairs.

The meeting ended with thanks to the Chair.


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




(Mr. S. P. Hota)
Registrar and Secretary, Senate