



INDIAN INSTITUTE OF TECHNOLOGY INDORE

Minutes of the 27th meeting of the Senate held from 14.30 hrs on August 2, 2021 (Monday) online from Room no. 1D-105, POD Building, IIT Indore.

Following members attended the meeting:

Chairman

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|-----------------------------|------------------------|
| 1. Prof. Neelesh Kumar Jain | Director (Officiating) |
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External Expert

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| 2. Prof. Himanshu Rai | Director, IIM Indore (Through VC) |
| 3. Mr. B. Anil Baliga | Ex-EVP, VE Commercial PVT. Ltd.
(Through VC) |
| 4. Prof. Ajay Kumar Jain | Dean, EGP & Consultancy, MDI Gurgaon
(Through VC) |

Internal Members

- | | |
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| 5. Dr. Devendra L. Deshmukh | Dean of Academic Affairs |
| 6. Dr. Pritee Sharma | Dean of Administration |
| 7. Prof. Avinash Sonawane | Dean of International Affairs and Outreach |
| 8. Dr. I. A. Palani | Dean of Research and Development |
| 9. Dr. Manish Kumar Goyal | Dean, Infrastructure Development |
| 10. Dr. Santosh Kumar Vishvakarma | Dean of Student Affairs |
| 11. Prof. Anand Parey | Dean of Resource Generation (Through VC) |
| 12. Dr. Somnath Dey | HOD, Computer Science and Engg. |
| 13. Dr. Neelima Satyam D | HOD, Civil Engineering |
| 14. Dr. Vinod Kumar | HOD, MEMS |
| 15. Dr. Amit Kumar | HOD, BSBE |
| 13. Dr. Abhirup Datta | HOD, AASE |
| 17. Dr. Bishwarup Pathak | HOD, Chemistry |
| 18. Dr. Pankaj R. Sagdeo | HOD, Physics |
| 19. Dr. Nirmala Menon | HOS, Humanities and Social Sciences |
| 20. Dr. Vipul Singh | HoD, Electrical Engineering (through VC) |
| 21. Dr. Santosh Kumar Sahu | HOD, Mechanical Engineering (through VC) |
| 22. Dr. Md. Aquil Khan | HOD, Mathematics (through VC) |
| 23. Prof. Sandeep Chaudhary | Civil Engineering and Head, CRDT |
| 24. Dr. Abhishek Rajput | Head, Training and Placement |
| 25. Dr. Amod C. Umarikar | Head, CEVITS |
| 26. Dr. Mukesh Kumar | Head, CAE |

Minutes, 27th Meeting of the Senate



27. Dr. Indrasen Singh
28. Dr. Neminath Hubballi
29. Prof. G. S. Murthy
30. Prof. Suman Mukhopadhyay
31. Prof. N. S. Chaudhari
32. Prof. Rajneesh Misra
33. Prof. Vimal Bhatia
34. Prof. Ram Bilas Pachori
35. Prof. Abhinav Kranti
36. Prof. Subhendu Rakshit
37. Prof. Krushna R. Mavani
38. Prof. Sarika Jalan
39. Dr. Lalit Borana
40. Dr. Hemant Borkar
41. Dr. Anand Petare
42. Mr. Rajesh Kumar

Head, CFDST (through VC)
 Head, CITC (through VC)
 BSBE and Head CISKs (through VC)
 Chemistry and Head, SIC (through VC)
 Computer Science and Engg. (through VC)
 Chemistry
 Electrical Engineering
 Electrical Engineering (through VC)
 Electrical Engineering (through VC)
 Physics (through VC)
 Physics (through VC)
 Physics (through VC)
 Chief Warden (through VC)
 Convener, Health Centre Committee (through VC)
 DGM, Central Workshop (through VC)
 Assistant Librarian

Special Invitees

43. Dr. Eswara Prasad Korimilli
44. Dr. Antony Vijesh
45. Mr. Suresh Chandra Thakur
46. Mr. Tapes Parihara
47. Mr. Abhay K. Awasthi

ADOAA (PG Programs)
 ADOAA (Academic Infrastructure) (through VC)
 Administrative Officer (Academic Affairs)
 Manager (Academic Affairs)
 Deputy Manager (Academic Affairs)

Secretary

48. Mr. S. P. Hota

Registrar I/c

Leave of absence: Following members could not attend the meeting and were granted leave of absence:

1. Shri Debashis Das
2. Prof. Abhiram G. Ranade
3. Dr. Pavan K. Kankar

Director, RRCAT, Indore
 Professor, IIT Bombay
 Head, Counselling Services



ITEM 27.1: Welcome and Opening remarks by the Chairman of the Senate.

The Senate Chairman welcomed all the members and special invitees to the 27th meeting of the Senate. He welcomed Dr. Amit Kumar, HoD BSBE, Dr Amod Umarikar, Head CEVITS, and Mr. Rajesh Kumar, Asst. Librarian who became Senate members (*ex-officio*) by virtue of their appointment as Heads of their respective department/Center/Unit. He conveyed thanks to the outgoing members of the Senate Dr. Debasis Nayak and Dr. Anjali Bandiwadekar. He also extended warm welcome to the external Members of the Senate, Prof. Himanshu Rai, Director of IIM Indore, Mr. B. Anil Baliga, Ex-EVP, VE Commercial PVT. Ltd. And Prof. Ajay Kumar Jain, Dean, EGP & Consultancy, MDI Gurgaon.

The Chairman mentioned that 7 international and 6 national level MOUs have been signed between the duration of 26th and 27th Meetings of the Senate which highlight Institute's emphasis in collaborations for fostering research, academic and incubation activities. The chair mentioned that signing of MoU with the Municipal corporations of Indore, Dewas, Ujjain and Sagar are under Govt. of India National Clean Air Mission which will add value to the quality of life of the people in these cities. He praised leadership of Dean, International Affairs and Outreach, Prof. Avinash Sonawane, Dr. I.A. Palani, Dean R and D, Associate Deans of IAO and R and D for their efforts in initiating of such MoUs. He mentioned that 6 patents have been granted during Feb-June 2021 and congratulated the all the patent grantees. The Chairman also mentioned that 132 persons (both in-campus and out-campus) were infected with COVID 19 during the 2nd wave of COVID during April-May 2021.

ITEM 27.2: Confirmation of the minutes of the 26th meeting of Senate held on March 22, 2021.

The Senate confirmed the Minutes of its 26th meeting held on 22nd March 2021 with the following observations:

Dean of Students Affairs, Dr. Santosh Kumar Vishwakarma, with reference to Item 26.2, mentioned that he followed same procedure in 2020 as used by him in 2019 in which approval of the Senate Chairman is not considered to be necessary for constitution of the Committee for seeking nominations for the Institute Silver Medal for the Best All Round Performance among all the graduating students of all the academic programs and evaluating the same.

It was mentioned that since the Certificates for different Medals and Awards are signed by the Senate Chairman and Silver Medal for the Best All Round performance among all the graduating students of all the academic programs is being awarded during the Convocation from 2018 onward therefore it is not a correct procedure for not taking Senate Chairman approval for constitution of the Committee for the same.

Item No. 26.27: "Deferred" to be changed to "Pending"

ITEM 27.3: Action Taken Report (ATR) on minutes of 26th meeting of Senate held on March 22, 2021.

The Senate noted the ATR with changing ATR for the Item 26.17: as "Under discussion".

ITEM 27.4: Proposal of New and Revised Courses.

The Senate discussed the syllabi of the following courses and approved them subject to fulfillment of the following conditions:

- Consistent style and pattern for formatting for the Scope of the courses, Course syllabus, Text/reference books, and Suggested References must be used before uploading on the academic portal.
- **Specific Corrective Action** must be taken before uploading on the academic portal
- Scope of the course should not more than the course syllabus

S. No.	Course Code	Title of the Course	Contact Hours	Faculty Members/ Scientist who will be responsible to teach the course	Specific corrective action to be taken
1.	AA 204	Introduction to Space Exploration	2-1-0-3	Dr. Amit Shukla, Dr. Rajkumar Hajra, Dr. Saurabh Das, Dr. Abhirup Datta Dr. Bhargav Vaidya	
2.	AA303	IoT for Space Applications	2-0-2-3	Dr. Siddharth Malu, Dr. Saurabh Das	
3.	AA 403 / AA 603	Space Engineering Systems	2-0-2-3	Dr. Saurabh Das, Dr. S. S. Malu, Dr. Abhirup Datta	
4.	AA 405 / AA 605	Detectors and Sensors for Space Observations	2-0-2-3	Dr. Manoneeta Chakraborty, Dr. Abhirup Datta	
5.	AA 407 / AA 607	Remote sensing for Atmospheric and Space Sciences	2-0-2-3	Dr. Saurabh Das, Dr. Abhirup Datta	Close coordination with and involvement of CE Faculty members for remote sensing
6.	AA 609	Computational Methods in Astronomy and Space Sciences	2-0-2-3	Dr. Bhargav Vaidya, Dr. Suman Majumdar	
7.	BSE 419 / BSE 619	Renewable Energy Technologies	2-1-0-3	Prof. G.S. Murthy, Dr. D.L. Deshmukh	
8.	BSE 621	Cell and Molecular	2-0-0-2	Dr. Prashant Kodgire, Dr. Amit Kumar	Syllabus should be shortened

		Biology			particularly for the 2 nd topic
9.	BSE 623	Plant and Animal Biotechnology	2-0-4-4	Dr. Amit Kumar, Prof. G.S. Murthy,	Syllabus should be shortened
10.	BSE 625	Emerging Technologies	2-1-0-3	Dr. Kiran Bala, Dr. Abhijeet Joshi,	
11.	BSE 631	Bio-entrepreneurship, IPR, Biosafety and Bioethics	2-1-0-3	Prof. Avinash Sonawane, Dr. Abhijeet Joshi	Title should be 'Bio-entrepreneurship, IPR, Biosafety, Bioethics' Course objectives should be reduced
12.	BSE 624	Bioprocess Engineering and Technology	2-0-4-4	Prof. Ganti S. Murthy, Dr. Kiran Bala	Syllabus should be shortened
13.	BSE 626	Immunology	2-1-4-5	Prof. Avinash Sonawane, Dr. Mirza S. Baig,	Syllabus should be shortened
14.	BSE 629	Genetics	2-0-0-2	Dr. Mirza S. Baig, Prof. Avinash Sonawane	Contact hours to be changed to 2-0-0-2
15.	BSE 633	Basics of Physics, Chemistry and Mathematics	2-0-0-2	Dr. Parimal Kar, Prof. Ganti S. Murthy,	Contact hours to be changed to 2-0-0-2 Word "Basic" to be dropped from each topic. Mathematics for biologists: sub-titles to be changed to "Differential and Integral Calculus"
16.	BSE 622	Molecular Diagnostics	2-0-0-2	Dr. Abhijeet Joshi, Dr. Hem Chandra Jha	Contact hours to be changed to 2-0-0-2
17.	BSE 627	Research Methodology and Scientific Communication Skills	0-0-2-1	Prof. Ganti S. Murthy, Dr. Mirza S. Baig	Change the title as highlighted in the red color
18.	BSE 628	Genomics and Proteomics	2-1-0-3	Dr. Hem Chandra Jha Prof. Avinash Sonawane	Syllabus was not found in the Agenda.
19.	CAE 401/ CAE 601	Advanced Microwave & Optical Devices	2-1-0-3	Dr. Mukesh Kumar Dr. Shaibal Mukherjee	
20.	CE 474/ CE 674	Road Safety	2-0-2-3	Dr. Gourab Sil/ Dr. Sanjram P. K.	Contact hours to be changed to 2-0-2-3 Dr Priyansh Singh should be included as one of the instructor.



21.	CE 498/ CE 698	Disaster Management	2-1-0-3	Dr. Neelima Satyam D Prof. Sandeep Chaudhary	To be cross-listed as PG course.
22.	CH 603	Quantum Chemistry	2-1-0-3	Dr. Biswarup Pathak Dr. Satya S. Bulusu	
23.	CH 605	Symmetry and Group Theory	2-1-0-3	Dr. Satya S. Bulusu Dr. Biswarup Pathak	
24.	CH 625	Stereochemistry, Pericyclic and Photochemistry	2-1-0-3	Dr. Sampak K Samanta, Dr. Rajneesh Misra	
25.	CH 645	Organometallic Chemistry	2-1-0-3	Dr. Sanjay K. Singh, Dr. A.K. Singh	
26.	CH 647	Coordination Chemistry	2-1-0-3	Dr. A.K. Singh, Prof. S. Mukhopadhyay	
27.	CH 649	Synthetic and Mechanistic Aspects of Organic Chemistry	2-1-0-3	Dr. Apurba K Das Dr. Venkatesh Chelvam	
28.	CH 651	Chemistry Lab-I	0-0-6-3	-	
29.	CH 606	Chemical and Statistical Thermodynamics	2-1-0-3	Dr. Tridib K. Sarma Dr. Satya S. Bulusu	
30.	CH 608	Molecular Spectroscopy	2-1-0-3	Dr. Tushar K. Mukherjee Dr. Anjan Chakraborty	
31.	CH 610	Molecular Structure Determination Techniques	2-1-0-3	Dr. U.A. Kshirsagar, Dr. Selvakumar S., Dr. Dipak K. Roy	
32.	CH 612	Main Group Chemistry	2-1-0-3	Dr. Dipak K. Roy, Dr. A. Raghuvanshi	
33.	CH 614	Synthesis of Natural Products and Heterocycles	2-1-0-3	Dr. C. Venkatesh, Dr. Apurba K Das	
34.	CH 752	Chemistry Lab-II	0-0-6-3	-	
35.	CS 425/ CS 625	Natural Language Processing	2-0-2-3	Dr. Chandresh K Maurya Dr. Nagendra Kumar	
36.	CS 426/ CS 626	Foundations of Cyber-Physical Systems	2-0-2-3	Dr. Gourinath Banda Dr. Neminath Hubballi	Contact hours to be changed to 2-0-2-3
37.	CS 427/ CS 627	Advanced Computer Networks	2-1-0-3	Dr. Neminath Hubballi Dr. Gourinath Banda	
38.	CS 428/ CS 628	Algorithmic Graph Theory	2-1-0-3	Dr. Ranveer Singh Dr. B. Mazumdar	



39.	EE 483/ EE 683	Error-Correcting Codes	2-1-0-3	Dr. Swaminathan R Dr. P.K. Upadhyay	
40.	EV 401/ EV 601	Vehicle Dynamics	2-1-0-3	Dr. S.I. Kundalwal Dr. D.L. Deshmukh	
41.	EV 402/ EV 602	Vehicular Communication Systems	2-1-0-3	Dr. Swaminathan R Dr. B. Mazumdar	
42.	EV 603	Autotronics	2-0-2-3	Dr. I. A. Palani Dr. S. Vasudevan	
43.	EV 605	Electric Machines and Drives	2-0-2-3	Dr. Amod Umarikar Dr. Trapti Jain	
44.	EV 407/ EV 607	Energy Storage in Electric Vehicles	2-0-2-3	Dr. Rupesh S. Devan, Dr. Sunil Kumar	Contact hours to be changed to 2-0-2-3
45.	HS 209	Intermediate Microeconomics	2-1-0-3	Dr. Ruchi Sharma Dr. Pritee Sharma	No pre-requisite
46.	HS 325	Industrial Organization	2-1-0-3	Dr. Ruchi Sharma Dr. Pritee Sharma	No pre-requisite Change in course title to be worked out
47.	HS 446	Music and Literary Modernism	2-1-0-3	Dr. Ananya Ghoshal Dr. Nirmala Menon	
48.	HS 410/ HS 610	Media Studies	2-1-0-3	Dr. Akshaya Kumar Dr. Ashok M. Mocherla	
49.	HS 621 / HS 421	Historiography and Historical Methods	2-1-0-3	Dr. Shomik Das Gupta Dr. Ruchi Sharma	Change in topics of the syllabus ('What is history ?' to 'Introduction to History') Cross-listing as 4 th level course
50.	HS 645 / HS 445	Advanced Discourse Studies	2-1-0-3	Dr. Sanchita Verma Dr. Ananya Ghoshal	Cross-listing as 4 th level course
51.	HS 655/ HS 455	Digital Humanities	2-0-2-3	Dr. Nirmala Menon Dr. Sanchita Verma	Cross-listing as 4 th level course
52.	HS 656	Applied Linguistics	2-0-2-3	Dr. Sanchita Verma Dr. Nirmala Menon	
53.	MA 653	Ramanujan's Mathematics	2-1-0-3	Dr. Bibekananda Maji Dr. Ashisha Kumar	
54.	MA 450 / MA 650	Mathematical Theory of Waves	2-1-0-3	Dr. Santanu Manna Dr. Vinay Kumar Gupta	
55.	MA 715	Analytic Number Theory	2-1-0-3	Dr. Bibekananda Maji Dr. Ashisha Kumar	
56.	PH 611	Flavor Physics and Neutrino Oscillations	2-1-0-3	Dr. Dipankar Das Prof. Subhendu Rakshit	Contact hours to be changed to 2-1-0-3
57.	PH 612	Dualities in field theory and gravity	2-1-0-3	Dr. Debajyoti Sarkar Dr. Manavendra Mahato	

The Senate deferred the following courses:

Course code	Course title	Contact hours	Faculty Members/ Scientist who undertake the responsibility to teach this course	Action to be taken for further consideration
BSE 420/ BSE 620	Engineered Systems Analysis	2-1-0-3	Prof. Ganti S. Murthy, Dr. Kiran Bala	Suggested title of the course as "Sustainability Analysis of Engineered Systems" and detailed syllabus be provided with more specific topics.
PH 723	Advanced Condensed Matter Physics	2-1-0-3	Dr. Srimanta Pakhira Dr. Sudeshna Chattopadhyay	Syllabus to be updated to justify the course title
MA 205	Graphs and Matrices	2-1-0-3	Dr. Swadesh K Sahoo Dr. Sk. Safique Ahmad	Withdrawn, it is part of proposed minor program in Mathematics whose structure is not finalized yet
MA 407/ MA 607	Nonlinear Dynamics and Computations	3-0-2-4	Dr. Bapan Ghosh Dr. Santanu Manna	Discussion on change in course credits needed
MA 605	Mathematical Methods in Kinetic Theory	3-1-0-4	Dr. Vinay Kumar Gupta Dr. Santanu Manna Dr. Shanmugam Dhinakaran	Discussion on change in course credits needed
CAE 602	Electronic Materials for Green Energy	2-1-0-3	Dr. Srimanta Pakhira Dr. Shaibal Mukherjee Dr. Mukesh Kumar	The syllabus should be thoroughly revised to meet expectations for PhD and PG students.

ITEM 27.5: Joint Online Degree Program with IIM Indore in Data Science.

The Senate discussed the course the proposed structure of the MS degree program on Data Science to be offered jointly by IIT Indore and IIM Indore. This program will be offered in the online mode with classes being held in the evening hours. It will consist of 6 trimesters of 10-12 weeks duration each. First 5 trimesters will have Engineering and Management courses which will be taught by IIT Indore and IIM Indore respectively. Whereas last trimester will be devoted to project work which can either be supervised jointly or independently by the faculty members of IIT Indore and IIM Indore. The proposed intake of approximately 200 students for this program will be selected through by

National Level Entrance Exam to be conducted jointly by IIT Indore and IIM Indore. It is planned that to start this program from Nov-Dec 2021 onward for AY 2021-22. The Institute has notified constitution of Academic Program Committee and Admission Committee on 21st June 2021 to take care all the issues related to starting this program. The Academic Council of IIM Indore has approved starting of this program and its course structure.

The Senate approved the proposed course structure and recommended to the BoG to approve starting of the MS degree program on Data Science jointly by IIT Indore and IIM Indore wef AY 2021-22.

Preparation of the course syllabi is under progress jointly by IIT Indore and IIM Indore which will be put up in the next meeting of the Senate.

ITEM 27.6.: Instituting the VPP MENON MEDAL of Excellence for the best PhD dissertation by A Woman Student

The Senate discussed the proposal of instituting *VPP Menon Medal for the best PhD thesis by a female student among all the graduating PhD students* from Convocation 2022 onward. Each department would nominate the best thesis from amongst the graduating female students and the external member to be selected based on the nominations received. It was decided to constitute the following committee to work out details and forms for nomination and evaluation, evaluation criteria for the received nomination, and other details for this awarding this medal during the Convocation.

Dean R and D: Convener

DOAA: Member

All HODs or their Representatives: Members

External Expert(s): Member(s)

The above-mentioned committee should submit its recommendations in the subsequent meeting of the Senate for consideration.

ITEM 27.7: List of students who have completed all the prescribed requirements for the award of degree during 9th Convocation of the Institute.

The Senate noted the list of total 432 students of different academic programs which include 242 BTech; 40 MTech; 79 MSc; 68 PhD; 1 MTech and PhD dual program; 2 MSc and PhD dual degree program, who have completed the prescribed requirements for the award of degree and will be conferred their degree in the 9th Convocation of the Institute. It has been ascertained that case of indiscipline, harassment, etc. is pending against any student in this list.

Dr. Vinod Kumar HOD (MEMS) made comments about one PhD student of MEMS.

After the discussion, the Senate recommend the list of 432 students for approval by the BoG for award of degrees during the 9th Convocation of the Institute.

Some more students (particularly of PhD and MS(Research) programs) will become eligible for award of the degree before the next meeting of the Senate and BoG which are customary held before the Convocation. Approval of such students will be done in those meetings.

ITEM 27.8: List of recipients of medals and awards during 9th Convocation of the Institute..

The Senate noted names of the students to be conferred with the Institute Medals and Awards during the 9th Convocation of the Institute and recommended them to the BOG for approval.

ITEM 27.9: Any other item with permission of the Chair

ITEM 27.9.1: Agenda Items for Ratification

ITEM 27.9.1A: In view of absence of most of the 4th year BTech students from Campus due to ongoing COVID 19 pandemic, interchange of the 7th and 8th semesters of BTech program for AY 2021-22 (similar to AY 2020-21) was allowed by the Chairman Senate based upon recommendations of the DOAA. The 2021 Autumn semester will have elective courses only and its teaching will continue to be conducted in the online mode. Whereas BTech Project will be carried out in 2022 Spring semester.

The Senate ratified it.

ITEM 27.9.1B: The fee notice of 2021 Autumn Semester was circulated exempting the accommodation charges for a student who is attending online classes (caused due to the ongoing COVID pandemic) of 2021 Autumn Semester from his/her home. In case a student return to the Campus during the Semester then accommodation fee shall be charged on pro-rata basis from the date of entry to the Campus till last date of 2021 Autumn Semester.

The Senate ratified it.

ITEM 27.9.2: Course Structure of dual degree program of BTech in Mechanical Engineering with MTech in Mechanical Systems Design in the Department of ME from AY 2021-22 onward

The Senate deliberated and approved implementation of the proposed course structure of dual degree program of BTech in Mechanical Engineering and MTech in specialization of Mechanical Systems Design in ME Department from AY 2021-22 onward.



ITEM 27.9.3: Course structure of the Ph.D. program in CAE.

The Senate deliberated and approved the course structure of PhD program in the Centre for Advanced Electronics (CAE) for non-TA categories wef AY 2021-22.

ITEM 27.9.4: Agenda requested by Prof. Rajneesh Mishra "To revoke the decision of not allowing to take PhD students, to those faculty who have students crossed the five years of registration. "

Prof. Rajneesh Mishra requested to relax the Senate decision by six months on "restriction on recruiting PhD students to a faculty member who is supervising PhD student(s) who has (have) completed five or more years of his/her PhD program" in view of the COVID pandemic situation.

The Senate deliberated on it and resolved to give one time relaxation of maximum six months without any financial implications to the Institute i.e. any faculty member supervising a PhD student(s) who has(have) completed five and half years of the PhD program till June 2022, can take PhD student during PhD admission cycles till June 2022. This this will be an exception in view of COVID pandemic and it can neither be used/cited as a rule nor permanent deviation from the earlier approved policy by the Senate and subsequently by BoG in this regard.

The meeting ended with the thanks to the Chair.



Mr. S.P Hota

Secretary, Senate and Registrar-in-charge



(Prof. Neelesh Kumar Jain)

Director (Officiating) and Chairman, Senate

