

# **INDIAN INSTITUTE OF SCIENCE, BANGALORE**

(Academic Section)

Minutes of the Meeting of

# **Senate Curriculum Committee (SCC)**

Date of Meeting	06th June 2024
Time	03:00 PM
Venue	IISc Council Chamber & M S Teams (Hybrid Meeting)

**A. Nitin Anand** Member Secretary

V. Cumaran

Prof. V. Kumaran

Chair

June 2024

### Minutes of the SCC Meeting held at 03.00 PM on 06th June 2024

### Members present:

Prof. V. Kumaran, CH	Chair
Prof. Balaji Rao Jagirdar, Dean UG	Ex-officio Member
Prof. Asokan Sundarrajan, Dean, Science	Ex-officio Member
Capt. Sridhar Warrier (Retd.), Registrar	Ex-officio Member
Prof. Kavita Babu, CNS	Member
Prof. V V Srinivas, Civil Engg.	II
Prof. Sandeep M Eswarappa, BC	11
Prof. Gopalaratnam Narayanan, EE	"
Prof. Sai G Ramesh, IPC	п
Prof. G L Shivakumar	11
	Member
Mr. S. Anoop, Deputy Registrar	Member-Secretary
Mr. A Nitin Anand, Assistant Registrar	Invitee
Mr. M Senthil Kumar, Assistant Registrar	

The following members could not attend the meeting :

Prof. Ashitava Ghosal, Dean, Engineering	Ex-officio Member
Prof. Vijay Natarajan, CSA	Member
Prof. Vamsi P Pingali, MA	"
Prof. Shalabh Bhatnagar, CSA	"
Prof. Ambarish Ghosh,CeNSE	п

The Chair welcomed the members of the SCC to the meeting. The following requests received for the offering of new courses, updates to current courses and items from members were discussed. After deliberations, SCC took appropriate decisions, gist of which is as under. In a few cases new information was sought, and discussions continued over email after the meeting to arrive at a decision.

#### I: New Course Proposals - Requests received on SAP

The following requests were received on SAP for SCC approval to offer new courses. After deliberations, SCC approved some courses, the gist of which is as under:

### **Division of Biological Sciences**

SI. No.	SAP Request No.	Creation Date	Course Code	Course Name	Requested by	Remarks
1	370	03-01-2024	BC 211	Synthetic Biology and Genetic Engineering	Saravanan Palani	Approved
2	381	13-04-2024	EC 207	Scientific writing for ecologists	Saskya Daly Van Nouhuys	*Conditionally Approved Pass/Fail implementation to be checked with Digits Team
3	382	17-04-2024	EC 102	Process of Scientific Thinking	Maria Thaker	Clarification on course load and existing similar course to be sought for
4	398	25-04-2024	MB 202	Introduction to Macromolecular X-ray Cry	Aravind Penmatsa	Approved
5	409	29-04-2024	MB 334	Advanced Methods in Molecular Simulation	Anand Srivastava	Approved
6	427	22-05-2024	RD 213	Stem cells and Mammalian development	Srimonta Gayen	Approved

#### **Division of Chemical Sciences**

SI. No.	SAP Request No.		Course Code	Course Name	Requested by	Remarks
7	429	27-052024	IP 328	Astrochemistry	Sai G Ramesh	Approved
8	371	11-012024	MR 311	Additive Manufacturing: Concepts, process	Bikramjit Basu	*Conditionally Approved SCC desires to make the course content in a descriptive format

#### **Division of Physical and Math. Sciences**

SI.No	SAP Request No.	Creation Date	Course Code	Course Name	Requested by	Remarks
9	353	23-102023	CCT 201	Cryogenic Technology: Fundamentals and Application	Upendra Behera	Approved
10	354	23-10-2023	CCT 301	Advances in Cryogenic Technology	Upendra Behera	Approved
11	355	23-10-2023	CCT 302	Single Molecule Imaging and Cryoelectron	Upendra Behera	Approved
12	356	23-10-2023	CCT 303	Cryoelectronics for Space Science	Upendra Behera	Approved
13	357	23-10-2023	CCT 202	Optical Devices at Low Temperatures	Upendra Behera	Approved
14	375	02-04-2024	HE 380	3D Quantum Gravity and 2D Conformal Fiel	Chethan Krishnan	*Conditionally Approved SCC sought the details of the pre-requisite and permission of Instructor to be included
15	376	03-04-2024	IN 279	RF networks and Systems	Baladitya Suri	*Conditionally Approved SCC desires to make the course content in a Descriptive format
16	380	12-04-2024	IN 303	Concepts of Terahertz Communication	Manukumara Manjappa	*Conditionally Approved SCC desires to make the course content in a Descriptive format
17	410	29-04-2024	IN 332	2D MATERIALS	Chandni U	Approved
18	406	27-04-2024	MA237	Introduction to Tilings	Subhojoy Gupta	Approved
19	416	29-04-2024	MA 376	Extremal Combinatorics	Arvind Ayyer	*Conditionally Approved SCC desires to make the course content in a Descriptive format
20	411	29-04-2024	PH 301	Seminar Course	Prateek Sharma	*Conditionally Approved SCC desires to make the course content in a Descriptive format
21	412	29-04-2024	PH 372	Radiative Processess in Astrophysics	Nirupam Roy	Approved
22	413	29-04-2024	PH 373	Introduction to Fluid Mechanics and Plasma Physics	Nirupam Roy	Approved

### **Division of EECS**

SI.No.	SAP Reque stNo.	Creation Date	Course Code	Course Name	Requested by	Remarks
23	383	17-04-2024	E0 318	Topics in Geometric Algorithms	Siddharth Barman	*Conditionally Approved SCC desires the Tentative syllabus to be removed in the course content
24	399	25-04-2024	E2 237	Statistical Learning Theory	Parimal Parag	*Conditionally Approved SCC desires the course content to be in the Descriptive format
25	400	26-04-2024	E3 211	Memory and Data Storage Technology	Bhagwati Prasad	Approved
26	408	29-04-2024	E8 312	Topics in Advanced Electromagnetics	Vinoy K J	*Conditionally Approved SCC found that the course content was inadequate. It was decided to seek additional information about the course from instructor.
27	405	26-04-2024	E1 250	Mathematics for Electric Power Engineers	Kaushik Basu	*Conditionally Approved SCC desires the Symbols and Equations to be avoided in the course content

SI.No.	SAP Reque	Creation Date	Cours e	Course Name	Requested by	Remarks
	stNo.	Date	Code			
28	387	22-04-2024	ST 224	Renewable energy	Punit Singh	*Conditionally Approved SCC desires to make the course content short
29	388	22-04-2024	ST 225	Sustainable Materials	Punit Singh	*Conditionally Approved SCC desires to make the course content short
30	389	22-04-2024	ST 226	Sustainable Water Management	Punit Singh	Approved
31	390	23-04-2024	ST 227	Environmental Analytical Chemistry	Punit Singh	*Conditionally Approved SCC desires the typos in the course content be cleared
32	391	23-04-2024	ST 228	Data Analysis, Machine Learning and Artificial intelligence	Punit Singh	*Conditionally Approved SCC desires the Typos in the course content be cleared and to make the course content short
33	392	23-04-2024	ST 229	Low-carbon infrastructure	Punit Singh	*Conditionally Approved SCC desires the Typos in the course content be cleared and to make the course content short
34	393	23-04-2024	ST 230	Ecology, Climate, and the Built Environment	Punit Singh	*Conditionally Approved SCC desires the Typing error in the course content be cleared and to make the course content short
35	423	03-05-2024	ST 232	Project	Punit Singh	Approved
36	424	03-05-2024	ST 231	Seminar	Punit Singh	Approved
37	418	30-04-2024	CE 207A	Characterization of nous Materials	Satyavati Komaragiri	Approved
38	419	30-04-2024	CE 204A	Pavement Engineering	Satyavati Komaragiri	Approved
39	394	23-04-2024	MT 303	Materials Informatics	Sai Gautam Gopalakrishnan	*Conditionally Approved SCC desires to make the course content short

### **Division of Mechanical Sciences**

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40	420	30-04-2024	MT 305	Integrated Computational Materials Engineering	Pikee Priya	*Conditionally Approved SCC desires to make the course content in a Descriptive format
41	414	29-04-2024	ME 263	Applied Finite Element Analysis	Ramsharan Rangarajan	*Conditionally Approved SCC desires to make the course content in a Descriptive format
42	415	29-04-2024	ME 306	Analytical and Statistical Thermodynamic	Koushik Viswanathan	Approved
43	372	11-02-2024	CH 253	Quantum-Mechanical Modeling of Nanomaterials	Ananth Govind Rajan	Approved
44	385	19-04-2024	CE 208A	Flood Resilient Transport System	Ashish Verma	Approved
45	265	25-03-2023	ME 203	Special Topics in Transport Phenomena	Shubhadeep Mandal	Approved

### **Division of Interdisciplinary Sciences**

_	SAP Request	Creation Date	Course Code	Course Name	Requested by	Remarks
46	<b>No.</b> 384	19-04-2024	BE 229	Statistics for Bioengineers	Siddharth Jhunjhunwala	Approved
47	386	20-04-2024	BE 230	Data Science for Bioengineers	Narendra M Dixit	Approved
48	396	24-04-2024	NE 206A	Semiconductor Device Physics: Basic Devices	Sushobhan Avasthi	*Conditionally Approved SCC desires to make the course content in a Descriptive format
49	401	26-04-2024	NE 200A	Technical Writing and Presentation	Supradeepa V R	Approved
50	402	26-04-2024	NE 241A	Materials synthesis: from quantum dots to bulk cry	Pavan Nukala	*Conditionally Approved SCC desires to have only the Course content and any other details regarding the course to be removed
51	403	26-04-2024	NE 299A	Dissertation Project	Supradeepa V R	Approved
52	404	26-04-2024	NE 203A	Advanced micro and nanofabrication technology and	Sushobhan Avasthi	Approved
53	417	30-04-2024	DS 307	Ethics In AI	Danish Pruthi	Approved

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54	421	30-04-2024	DS	Topics in Visual	Anirban	*Conditionally Approved
			363	Analytics	Chakraborty	Topics to be Removed
					-	& SCC desires to make the
						course content short
55	373	29-02-2024	CP 321	Imitation Learning for	Ravi Prakash	*Conditionally Approved
				Robotics		SCC desires to make the
						course content in a
						Descriptive format
56	379	09-04-2024	CP 217	Machine Learning for	Punit Rathore	Approved
				Cyber- Physical		
				Systems		
57	395	24-04-2024	CP 340	Energy Data Analytics	Pandarasamy	*Conditionally Approved
					Arjunan	SCC desires to make the
					·	course content short

### **IISc's Knowledge and E-Learning Network**

SI. No.	SAP Request No.	Creation Date	Course Code	Course Name	Requested by	Remarks
58	426	14-05-2024		Deep Generative Models	Prathosh A.P	*Conditionally Approved SCC desires to make the course content in a Descriptive format
59	407	28-04-2024		Advanced Topics in Image Processing	Soma Biswas	Approved

\* **Conditionally Approved:** These requests will be sent back for review to the instructor. Will be approved after Instructor / DCC resubmits the proposal with updates that address the comments.

### II: Academic Calendar for 2024-25

### The Following Academic Calendar for 2024-2025 August term was approved. <u>August-December 2024 Term</u>

Sl No	Academic Activities	Time period
1	Standard Duration of Academic Session	01.08.2024 to 31.12.2024
2	First Day of Classes	01.08.2024
3	Course Registration	01.08.2024 to <b>14.08.2024</b>
4	DCC and Instructor's approval/rejection of Course Registration Up to 16.08.2024	
5	Auto Approval of Course Registration	17.08.2024
6	Course dropping (without mention)	18.08.2024 to 23.09.2024
7	DCC and Instructor's approval/rejection of Course Dropping (without mention)	Up to 25.09.2024
8	Auto Approval of Course Dropping (without mention)	26.09.2024
9	Course dropping (with mention)	27.09.2024 to 25.10.2024
10	DCC and Instructor's approval/rejection of Course Dropping (with mention)	Up to 28.10.2024
11	Auto Approval of Course Dropping (with mention)	29.10.2024
12	Course & Instructor Feedback Submission	30.10.2024 to 11.11.2024
13	Last day of Classes	14.11.2024
14	End Term Examination	21.11.2024 to 03.12.2024
15	Course Grade Entry	21.11.2024 to 13.12.2024
16	Exams Results Publishing	31.12.2024
17	Course & Instructor Feedback View	From 01.01.2025

As Per the decisions taken in the SCC meeting, the course registration will be open till 14/08/2024 and the last day of the classes will be till 14/11/2024.

SI. No.	Description	Decision/Remarks
1	Formal Removal of audit registration from SAP	Recommended, to be discussed in JFM and Senate.
2	SAP - Creation of a dedicated interface to modify course contents	SCC Desires to know the possibility of implementation on SAP, to be checked with digits. (Modification of the course content at the time of course mapping to be withdrawn and dedicated interface where only content and references are allowed to be changed and depending on the quantum of change which can be measured by the character length change it can be flagged to SCC automatically else the DCC can approve if it is a minor changes )Feasibility to be reported.
3	SAP - Finite time windows for course creation and contents modification	SCC Desires to know the possibility of implementation on SAP, to be checked with digits.(Course creation and modification tile if created to be time limited. SCC desires to have these tiles to be active for only specific duration in each term )
4	SAP - communicating DAP cases to PCC and entry of department responses directly on SAP	SCC Desires to know the possibility of implementation on SAP, to be checked with digits. (Whether it is feasible to flag it on SAP and department to enter the responses directly and the responses be recorded) Course registration/ Drop email for approvals are truncated ,Course Code to be displayed, Shorter emails rather than paragraphs containing student name , course code, title/Course name ,credits requested.
5	Discussion on Attendance policy	Two letters indicating two different opinions of SCC members was decided to be addressed to the director.

## III: Items From Members

# IV: Proposal from DCCs/PCCs

Sl. No.	Description	<b>Requested By</b>	Decision/Remarks
1	Academic Structure – New M.Tech. program in Sustainable Technology	Prof. Punit Singh	Approved * Updated curriculum will be effective from the next academic year.
2	Academic Structure – New one year M.Engg in Semiconductor Technology program	Prof. Srinivasan Raghavan	Approved * Updated curriculum will be effective from the next academic year.
3	Academic Structure Change - MTech in Semiconductor Technology	Prof. Srinivasan Raghavan	Approved * Updated curriculum will be effective from the next academic year.
4	MoU & Academic Structure – New Joint MTech between IISc and Taiwanese Universities in Semiconductor Technology	V.R.	Approved 1)It was suggested by the members to have in place an SOP to channelize academic related MoU's through academic section. 2)Concerned professors from the department to clarify what is planned with the exchange of credits and the agreement to the SCC and academic section. * Updated curriculum will be effective from the next academic year.
5	Request for curriculum update – M.Tech RAS	Prof. Vaibhav	Approved * Updated curriculum will be effective from the next academic year.
6	Course curriculum and structure changes to MTech in Instrumentation Systems, IAP	Prof. Baladiya Suri & Prof. Sanjiv Sambandan	Approved * Updated curriculum will be effective from the next academic year.

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7	PCC coordinator change, course structure and curriculum change for Quantum Technology M Tech program	Prof. Baladiya Suri & Prof. Sanjiv	
	Technology M.Tech program	Sambandan	* Updated curriculum will be effective from the next academic year.
8	Request for curriculum update - M.Tech AE		* SCC desired seeking Justification from the department for increasing the course AE 201 Flight and Space Mechanics to 4 credits
			*SCC is of the opinion that the scheduling of a 4-credit course is a problem. Hence, clarification to be sought.
			New courses proposed including project courses should be initiated on SAP.
			*18 Courses are proposed to be dropped. Hence, a clarification is desired if sufficient courses are available for the students to choose from.
9	Request for curriculum update - M.Tech Civil Engg	Prof. Debraj Ghosh	
			* Updated curriculum will be effective from the next academic year.
10	Request for curriculum update - M.Tech (Online) in DSBA.	Prof. Deepak Subramani	Approved
			* Updated curriculum will be effective from the next academic year.
11	Request to change a core course to elective (BE206: Biology for Engineers)	Prof. Rachit Agarwal & Prof. Ajay Tijore	Approved
			* Updated curriculum will be effective from the next academic year.
12	Request for removal of workshop course from Int. PhD Physical Science academic	Prof. Prateek Sharma	Approved
	structure		* Updated curriculum will be effective from the next academic year.
13	Request for Syllabus update: E6 225 (3:0) & E3 252 (3:1)		Approved
			* Updated curriculum will be effective from the next academic year.

14	Instructor Update Request : IP 328 (3:0) "Astrochemistry"	Prof. Sai Ganesh Ramesh	Approved
			* Updated curriculum will be effective from the next academic
			year.

\* Updated curriculum will be effective from the next academic year. In cases where the curriculum is updated, the DCCs / Chairs are requested to submit the updated academic structure to the SLCM team and academic office so that it can be uploaded and mapped to the incoming batch of students.

The meeting ended with a vote of thanks to the chair and all the members

**A.Nitin Anand** Member Secretary

V. Kumaran

Prof. V. Kumaran

Chair

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