



**INDIAN INSTITUTE OF SCIENCE
BANGALORE**

(Academic Section)

Minutes of the Meeting of

Senate Curriculum Committee (SCC)

Date of Meeting	05 th June 2023
Time	03:00 PM
Venue	Microsoft Teams (Online)

A. Nitin Anand
Member Secretary

Vijay Natarajan (Jul 25, 2023 09:40 GMT+2)

Prof. Vijay Natarajan
Former Chair

Prof. Kumaran Viswanathan
Present Chair

June 2023

Minutes of the SCC Meeting held at 03.00 PM on 05th June 2023

Members present:

Prof. Kumaran Viswanathan, CH	Chair
Prof. Vijay Natarajan, CSA	Former Chair
Prof. Ashitava Ghosal, Dean, Engineering	Ex-officio Member
Prof. Sai G Ramesh, IPC	Members
Prof. Shalabh Bhatnagar, CSA	"
Prof. Kavita Babu, CNS	"
Prof. V V Srinivas, Civil Engg.	"
Prof. Sandeep M Eswarappa, BC	"
Prof. Vamsi P Pingali, MA	"
Prof. Ambarish Ghosh, CeNSE	"
Prof. Gopalaratnam Narayanan, EE	"
Mr. S. Anoop, Deputy Registrar	"
Mr. A Nitin Anand, Assistant Registrar	Member-Secretary

The following member/s could not attend the meeting due to pre-occupation:

Capt. Sridhar Warriar (Retd.), Registrar	Ex-officio Member
Prof. Umesh Varshney, Dean Science	Ex-officio Member
Prof. Balaji Rao Jagirdar, Dean UG	Ex-officio Member

I: Proposed Curriculum Updates and New Courses - Requests received on Mail

The Chair welcomed the members of the SCC to the meeting. The following requests received for updating current curriculum, offering of new courses, and updates to current courses were discussed. After deliberations, SCC approved the requests, 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 the decision.

Sl. No.	Description	Name of the Instructor & Dept.	Decision/Remarks
1	Curriculum for the new M.Tech programme in Mobility Engineering)	Prof. Ravikrishna Rayavarapu	Conditionally Approved. SCC asked for a few clarifications. The inputs from SCC were incorporated and an updated curriculum was submitted and approved.
2	Curriculum for the new M.Tech programme in	Prof. Srinivasan Raghavan	Approved.

	Semiconductor Technology		
3	M Tech RAS curriculum update	DCC CPS	<ol style="list-style-type: none"> 1. Updates to core and soft -core courses list approved. 2. Request for change in credits for core and soft-core courses approved. <ul style="list-style-type: none"> • Required 10 credits of core courses. • Minimum 15 credits of soft-core courses • Balance of credits from institute electives 3. Request for updating the number of thesis project credits is not approved.
4	Curriculum Update - M. Tech Smart Manufacturing	Prof. Dibakar Sen	<p>Approved.</p> <p>*Updated curriculum will be effective from next academic year.</p>
5	Curriculum Update – M. Tech Quantum Technology	Prof. Baladitya Suri	<p>Approved.</p> <p>*Updated curriculum will be effective from next academic year.</p>
6	Curriculum Update - M. Tech AI (Online)	Prof. Chandramani Singh	<p>Approved.</p> <p>*Updated curriculum will be effective from next academic year.</p>
7	Update to the syllabus of CD224 (Chemical Sciences)	Prof. Partha Sarathi Mukherjee	<p>Approved.</p> <p>*Updated curriculum will be effective from next academic year.</p>
8	Inclusion of Prof. Srihari Keshavamurthy as instructor in IP 330 and IP 327	Prof. Sai G Ramesh	<p>Approved.</p>
9	Inclusion of Dr. Prasant Kumar Misra as instructor in CP 320	DCC CPS	<p>Approved.</p>

* 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.

II: Proposed New Courses for offer- 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:

Sl. No.	SAP Req. No.	Req. creation Date	Course Code	Course Name	Remarks
1	261	24.01.2023	MA 389	Seminar on topics in mathematics	*Conditionally Approved
2	262	19.02.2023	E1 252o	Linear and Nonlinear Optimization	Approved
3	263	22.02.2023	MR 310	Light emitting materials and devices	Approved
4	264	06.03.2023	PH 380	Non-equilibrium Quantum Many-Body Dynamics	Approved
5	266	29.03.2023	ME 262	Wave Propagation in Solids	Approved
6	267	03.04.2023	PH 375	Symmetry, Topology, and Entanglement in Condensed Matter	Approved
7	268	11.04.2023	MT 204	Structure and Properties of Materials	*Conditionally Approved
8	269	11.04.2023	MT 205	Structural characterization of Materials	Approved
9	270	11.04.2023	CH 252	Hydro processing	Approved
10	271	12.04.2023	NE 351	Quantum transport in low dimensional materials	*Conditionally Approved
11	272	14.04.2023	E1 384	Topics in Stochastic Optimization	Approved
12	273	18.04.2023	IP 330	Special Topics in Physical Chemistry	Approved
13	274	19.04.2023	BC 303	Seeing is Believing: Single-Molecule Methods in Bi	*Conditionally Approved
14	275	20.04.2023	NE 235	Microsystem Design and Technology	*Conditionally Approved
15	276	21.04.2023	HE 390	Black Holes, Holography and Quantum Information	Approved
16	278	24.04.2023	DS 216	Machine Learning for Data Science	*Conditionally Approved

17	279	25.04.2023	E3 226	Art of Compact Modeling	*Conditionally Approved
18	280	27.04.2023	E0 282	Foundations of Secure Computation	*Conditionally Approved
19	281	27.04.2023	ME 204	Mechanics of the Elastica	Approved
20	282	27.04.2023	DA 219o	Quantum Computing Methods: Theory and Applications	Approved
21	283	28.04.2023	ME 278	A practical introduction to data analysis	Approved
22	287	29.04.2023	E1 225	Introduction to Causality Models	Approved
23	288	29.04.2023	DS 285o	Tensor Computations for Data Science	Approved
24	289	02.05.2023	MB 333	Advanced course for Cryo-EM sample preparation and 3D image reconstruction	Approved
25	293	04.05.2023	ME 207	Capillarity and Interfacial Phenomenon	Approved
26	294	04.05.2023	ME 217	Experimental Methods in Mechanical Engineering	Approved
27	298	07.05.2023	NS 213	Single Molecule Approaches in Biology	*Conditionally Approved
28	299	08.05.2023	BC 213	Fundamentals of Immunotherapy	*Conditionally Approved
29	300	08.05.2023	MA 267	Introduction to Statistical Learning with Applications	*Conditionally Approved
30	301	08.05.2023	MA 379	Linear Algebraic Groups	Approved
31	302	08.05.2023	SS 309	Electrochemical Technologies	Approved
32	303	08.05.2023	NE 201A	Theory of structural and functional characterization	Approved
33	304	08.05.2023	NE 352	Quantum transport in low dimensional materials	Approved
34	305	08.05.2023	NE 201B	Lab for structural and functional characterization	Approved
35	306	08.05.2023	MA 345	Complex Manifolds	Approved
36	307	08.05.2023	MA 358	Topics in Number theory II	Approved

37	308	08.05.2023	WR 203	Applied geochemical modelling and Water quality analysis	Approved
38	309	08.05.2023	MA 458	Topics in Number Theory 3	*Conditionally Approved
39	310	09.05.2023	DA 216o	Applied Artificial Intelligence in Healthcare	Approved
40	311	09.05.2023	CP 241	Applied Linear and Nonlinear Control	Approved
41	312	09.05.2023	SS 305	Stochastic Thermodynamics	Approved
42	313	09.05.2023	SS 306	Deep Learning for Physical and Chemical Systems	*Conditionally Approved
43	314	10.05.2023	MA 357	Topics in Representation theory	*Conditionally Approved
44	315	10.05.2023	IN 280	Optical Instrumentation	*Conditionally Approved
45	316	10.05.2023	CP 320	Operations Research for Mobility Management	Approved
46	317	10.05.2023	CP 250	Energy Informatics	Approved
47	318	11.05.2023	MC 217	Fundamentals of Immunotherapy	*Conditionally Approved
48	319	11.05.2023	E6 228	Grid Integration of Inverter-Based Energy Sources	Approved
49	320	11.05.2023	DA 201o	Applied AI with MLOps for Scalable ML Systems	Approved
50	321	11.05.2023	DA 204o	Data Science in Practice	*Conditionally Approved
51	322	11.05.2023	IN 206	Signals and Systems for Digital Health	*Conditionally Approved
52	323	12.05.2023	DS 207	Introduction to Natural Language Processing	Approved
53	324	13.05.2023	CO 202	Research Communication	Approved
54	325	13.05.2023	E7 222	Lasers I: Principles	*Conditionally Approved
55	326	13.05.2023	E7 223	Fourier Optics	Approved


56	327	13.05.2023	E1 220o	Linear Algebra	*Conditionally Approved
57	328	14.05.2023	NE 320	Quantum Optics	Approved
58	329	24.05.2023	ER 207	Optimal Design of energy systems	Approved

*** Conditionally Approved:** Proposal returned to proposer for review on SLCM with specific comments. Will be approved after Instructor / DCC resubmits the proposal with edits that address the comments.

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



A. Nitin Anand
Member Secretary


[Vijay Natarajan \(Jul 25, 2023 09:40 GMT+2\)](#)

Prof. Vijay Natarajan
Former Chair



Prof. Kumaran Viswanathan
Present Chair