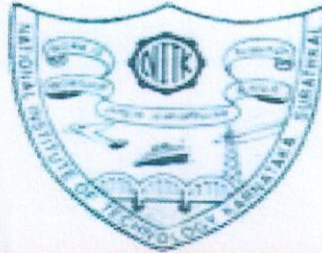# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

P.O. SRINIVASNAGAR, MANGALURU-575025

MINUTES
OF THE
39th BOS Meeting

Date   :   08.03.2024 (Friday)

Time   :   03:00 PM

Venue   :   Board Room
             N.I.T.K., Surathkal
             MANGALURU
             PIN - 575 025

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

Minutes of the Thirty Ninth combined Board of Studies (UG, PG & Research) Meeting held on Friday, 8ᵗʰ March 2024 in the Board Room of NITK Surathkal.

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MEMBERS PRESENT

1)	Prof. Dwarakish G.S.	...	Chairman
2)	Mr. K. Ravindranath	...	Member
3)	Dr. Vijay Sai Prasad	...	External Member
4)	Prof. Deepti P.P	...	External Member
5)	Prof. Udaya Bhat	...	Member
6)	Prof. Arun M.	...	Member
7)	Prof. U. Sripathi Bhat	...	Member
8)	Prof. Vasudev	...	Member
9)	Prof. Neelavar Shekhar Shet	...	Member
10)	Prof. Dattatreya Gaonkar	...	Member
11)	Prof. I. Regupathi	...	Member
12)	Prof. S.M. Murigendrappa	...	Member
13)	Prof. Subhash C. Yaragal	...	Member
14)	Prof. K. Varija	...	Member
15)	Prof. Sam Johnson	...	Member
16)	Dr. Manu Basavaraju	...	Member
17)	Dr. Darshak Trivedi	...	Member
18)	Dr. Sheena	...	Member
19)	Dr. Geetha V	...	Member
20)	Dr. Kum Kum Banerjee	...	Member
21)	Dr. Karthik Taraffdar	...	Member
22)	Dr. Mallikarjun Angadi	...	Member
23)	Ms. Sandhya AR (Academic) i/c	..	Secretary

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

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NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

Minutes of Thirty Ninth (39th) BOS meeting held on 08-03-2024 (Friday) at 3.00 pm in the Board Room

The Chairman (BOS) and Dean (Academic) chaired the meeting and welcomed all the members to the **Thirty Ninth BOS meeting.**

ITEM No. 39-BOS-A: Confirmation of minutes of 38th meeting of the BOS held on 13th March, 2023 3.00 pm in the Board Room.

The minutes of **Thirty eighth BOS** meeting was approved as there were no comments received from the members.

ITEM No.:39-BOS-1 Proposals of Department of Chemical Engineering		
a) Inclusion of the elective course for M.Tech Chemical Engineering.		
Proposal	BOS Resolution	
The DFC of the Department of Chemical Engineering has proposed to include the following elective course for the M.Tech Chemical Engineering **CH817**: **AI and ML in Chemical Engineering (2-1-0)3** The details are attached as **Annexure - I Page No. 1,2**	The **BOS resolved to recommend** the proposal of the DFC of Department of Chemical Engineering for the inclusion of the elective course.	**For Senate approval**

(b) Inclusion of elective course for M.Tech (Environmental Science and Technology) and M.Tech (Industrial Biotechnology)		
Proposal	BOS Resolution	
The DFC of the Department of Chemical Engineering has proposed to include the following elective course for M.Tech (Environmental Science and Technology) and M.Tech (Industrial Biotechnology). **CH815: Molecular Simulations** The details are attached as an **Annexure-I, Page No. 3**	The **BOS resolved to recommend** the proposal of the DFC of the Department of Chemical Engineering for the inclusion of the elective course for M.Tech (EST) and M.Tech (IB).	**For Senate approval**

(c) Correction of Typo/oversight errors in the PG curriculum 2022

Proposal	BOS Resolution	
The DFC of the Department of Chemical Engineering has proposed for correction of typo/oversight errors in the PG Curriculum 2022 as below: 1. The contents of the courses 'CH814 Polymerization Reaction Engineering' and 'CH815 Molecular Simulations' are interchanged. However, the course names for CH814 and CH815 are correct. 2. The course name for 'CH816 Introduction to Quantum Technology' has to be changed as **"CH816 Introduction to Quantum Technology for Chemical Engineers"**. The details are attached as an **Annexure-I, Page No. 3&5**	The **BOS resolved to recommend** the proposal of the DFC of the Department of Chemical Engineering for the correction of typo/oversight errors in the PG Curriculum 2022.	**For Senate approval**

ITEM No.: 39-BOS-2   Proposals of Department of Civil Engineering

a) Introduction of new course in PG programme – Environmental Engineering.

Proposal	BOS Resolution	
The DFC of the Department of Civil Engineering has proposed to introduce the following new elective course in Postgraduate programme Environmental Engineering. **CV859: Indoor Air Quality (3-0-0)3** The details are attached as **Annexure - II Page No. 1**	The **BOS resolved to recommend** the proposal of the DFC of Department of Civil Engineering for the introduction of new elective course CV859.	**For Senate approval**

b) Revision of course and rename the course

Proposal	BOS Resolution	
The DFC of the Department of Civil Engineering has proposed to revise and rename the following course. **Existing: CV266: Geology Lab (0-0-3)2** **Proposed Revision: CV266: Engineering Geology Lab (0-0-3)2**	The **BOS resolved** that Lab content revision may be taken during major revision of curriculum.	**Reporting to Senate**

c) Swapping of course

Proposal	BOS Resolution	
The DFC of the Department of Civil Engineering has proposed to swap the courses between two existing subjects. **Existing :** **CV386 : Rock Mechanics (3-0-0)3** **Revision proposed : CV375 : Rock Mechanics ((3-0-0)3** **Existing : CV375 : Applied Rock Engineering (3-0-0)3** **Revision proposed : CV386: Applied Rock Engineering (3-0-0)3** The details are attached as an **Annexure-II, Page No. 2,3**	The **BOS resolved to recommend** the proposal of the DFC of Department of Civil Engineering for swapping of courses.	**For Senate approval**

d) Additional course in M.Tech – Geotechnical Engineering

Proposal	BOS Resolution	
The DFC of the Department of Civil Engineering has proposed to add the following course in the PG programme – Geotechnical Engg. **CV728 : Geotextile Testing Laboratory (0-0-3)2**	The **BOS resolved** that addition of PG core course may be taken up during major revision of curriculum.	**Reporting to Senate**

e) Additional course in UG programme

Proposal	BOS Resolution	
The DFC of the Department of Civil Engineering has proposed to add the following course in the UG programme as elective. **CV492: Reinforced Earth Structures (3-0-0)3** The details are attached as an **Annexure-II, Page No. 4**	The **BOS resolved to recommend** the proposal of the DFC of Department of Civil Engineering for the additional course in UG programme as elective.	**For Senate approval**

f) Additional course in M.Tech – Geotechnical Engineering

Proposal	BOS Resolution	
The DFC of the Department of Civil Engineering has proposed to add the following course in M.Tech Geotechnical Engineering as an elective. **CV835: Geotextiles for Sustainable Infrastructure (3-0-0)3** The details are attached as an **Annexure-II, Page No. 4**	The **BOS resolved to recommend** the proposal of the DFC of Department of Civil Engineering for the additional course in M.Tech Geotechnical Engineering as elective	**For Senate approval**

g) Revision of course

Proposal	BOS Resolution	
The DFC of the Department of Civil Engineering has proposed to revise the following elective course. **CV321: Applied Soil Engineering (3-0-0)3** The details are attached as an **Annexure-II, Page No. 5**	The **BOS resolved to recommend** the proposal of the DFC of Department of Civil Engineering for the revision of the elective course	**For Senate approval**

ITEM No.: 39-BOS-3   Proposals of Department of Computer Science and Engineering

a) Introduction of new elective courses for UG Programme.

Proposal	BOS Resolution	
The DFC of the Department of Computer Science and Engineering has proposed to introduce the following new elective courses for UG Programme. **CS346: Computing in Autonomous Vehicles (3-1-0)4** **CS321: Full Stack Development (3-1-0)4** **CS368: Security Engineering (3-1-0)4** **CS369: Approximation Algorithms (3-1-0)4** **CS370: Parameterized Algorithms (3-1-0)4**	The **BOS resolved to recommend** the proposal of the DFC of Department of Computer Science and Engineering to introduce the new elective courses for UG programme. However, the BOS also resolved to recommend no pre-requisite required for the proposed electives.	**For Senate approval**

CS371: Computational Complexity (3-1-0)4

CS372: Randomized Algorithms (3-1-0)4

CS322: Graph Drawing (3-1-0)4

The details are attached as an **Annexure-III, Page No. 1-6**

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b) Introduction of new Elective courses for PG programme

Proposal	BOS Resolution	
The DFC of the Department of Computer Science and Engineering has proposed to introduce the following new elective courses for PG Programme. **CS742: Computational Acceleration in Autonomous Vehicles (3-1-0)4** **CS743: Geometric Algorithms (3-1-0)4** The details are attached as an **Annexure-II, Page No. 5**	The **BOS resolved to recommend** the proposal of the DFC of Department of Computer Science and Engineering to introduce the new elective courses for PG programme.	**For Senate approval**

ITEM No.: 39-BOS-4 Proposals of Department of Electrical and Electronics Engineering

a) Modifications in the course content and LTP structure in the following PG courses.

Proposal	BOS Resolution	
The DPGC of the Department of Electrical and Electronics Engineering has proposed the following modifications in the Course content and LTP structures.	The **BOS resolved to recommend** the proposal of the DPGC of the Department of Electrical and Electronics Engineering for the modifications in the Course	**For Senate approval**

	content and LTP structures.	
EE852: PV Power Systems (3-0-0)3 to (3-1-0)4 **EE854: Distributed Generation** (3-0-0)3 to (3-1-0)4 **EE876: Digital Controllers and Applications in Power Electronics** (4-0-0)4 to (3-0-2)4 **EE808: Finite Element Methods and Applications** (3-0-0)3 to (3-0-2)4 The details are attached as an **Annexure-IV, Page No. 1,2**		

b) Modifications in the course title, content and LTP structure of EE875 course.

Proposal	BOS Resolution	
The DPGC of the Department of Electrical and Electronics Engineering has proposed the following modifications in the Course title, content and LTP structure of EE875 course. **EE875: Fundamentals of Electric Vehicles (EVs) (4-0-0)4** To **EE875: Electric Vehicle Technology (3-0-2)4** The details are attached as an **Annexure-IV, Page No. 2**	The **BOS resolved to recommend** the proposal of the DPGC of the Department of Electrical and Electronics Engineering for the modifications in the Course title, content and LTP structure of EE875 course.	**For Senate approval**

c) Description of Grades in the UG Curriculum.

Proposal	BOS Resolution	
The DUGC of the Department of Electrical and Electronics Engineering has proposed to recommend the following points.	The **BOS resolved** that this matter can be proposed in the Senate meeting as it is policy decision.	**Reporting to Senate**

"Making an entry on the grade card for any courses with either FA or FF can be dropped. Only such courses wherein student earns credits in any semester may be shown on the grade card". The details are attached as an **Annexure-IV, Page No. 2**		

d. Modifications in the course content and LTP structure in the following UG course.

Proposal	BOS Resolution	
The DUGC of the Department of Electrical and Electronics Engineering has proposed the following modifications in the Course content and LTP structure in the UG course. **EE301: Data Structures and Algorithms (3-1-0)4 to (3-0-2)4** The details are attached as an **Annexure-IV, Page No. 4**	The **BOS resolved to recommend** the proposal of the DUGC of the Department of Electrical and Electronics Engineering for the modifications in the Course content and LTP structure in the UG course EE301.	**For Senate approval**

e) Introduction of two new courses as electives in the B.Tech programme.

Proposal	BOS Resolution	
The DUGC of the Department of Electrical and Electronics Engineering has proposed to introduce the following two new elective courses in the B.Tech programme curriculum. **EE450: Fundamentals of Electric Vehicles (3-1-0)4** **EE403: Deep Neural Network and Applications (3-0-2)4** The details are attached as an **Annexure-IV, Page No. 4,5**	The **BOS resolved to recommend** the proposal of the DUGC of the Department of Electrical and Electronics Engineering for the introduction of two new elective courses in the B.Tech programme.	**For Senate approval**

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

ITEM No.: 39-BOS-5 Proposals of Department of Information Technology

a) Minor changes in the programme specific electives of B.Tech (AI).

Proposal	BOS Resolution	
The DFC of the department of Information Technology has proposed to remove the constraint mentioned in Programme Specific Electives (PSE) "Atleast 7 electives with (3-0-2)4 credit courses should be selected [Two courses must be taken from each cluster]". The details are attached as an **Annexure-V, Page No. 2**	The **BOS resolved to recommend** the proposal of the DFC of the Department of Information Technology to remove the constraint mentioned in PSE.	**For Senate approval**

b) Offering only one B.Tech (IT) Minor program from department of IT

Proposal	BOS Resolution	
The DFC of the department of Information Technology has proposed to offer only one B.Tech Minor program as B.Tech (IT) Minor from the year 2024-25 onwards instead of earlier offering two B.Tech programs B.Tech (IT) and B.Tech AI).	The **BOS resolved** that this matter can be proposed in the Senate meeting.	**Reporting to Senate**

c) Introducing new elective course for B.Tech (IT)

Proposal	BOS Resolution	
The DFC of the Department of Information Technology has	The **BOS resolved to recommend** the proposal of the	**For Senate approval**

proposed to introduce the following new elective course in the B.Tech (IT) programme. **Randomized Algorithms (3-1-0)4** The details are attached as an **Annexure-V, Page No. 1,3**	DFC of Department of Information Technology to introduce the new elective course in the B.Tech (IT) programme.

d) Introducing new elective course for B.Tech (AI)

Proposal	BOS Resolution	
The DFC of the Department of Information Technology has proposed to introduce the following new elective course in the B.Tech (AI) programme. **Applied Algorithms (3-1-0)4** The details are attached as an **Annexure-V, Page No. 1,4**	The **BOS** resolved to **recommend** the proposal of the DFC of Department of Information Technology to introduce the new elective course in the B.Tech (AI) programme.	**For Senate approval**

e) Additional course in PG programme

Proposal	BOS Resolution	
The DFC of the Department of Information Technology has proposed to introduce the following new elective courses in the M.Tech (IT) programme. **Design of Secure Protocols (3-1-0)4** **Approximation Algorithms (3-1-0)4** The details are attached as an **Annexure-V, Page No. 1,3**	The **BOS** resolved to **recommend** the proposal of the DFC of Department of Information Technology to introduce the new elective courses in the M.Tech (IT) programme	**For Senate approval**

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

ITEM No.: 39-BOS-6 Proposals of Department of Mathematical and Computational Sciences

a) Inclusion of new elective in B.Tech (CDS)

Proposal	BOS Resolution	
The DFC of the Department of Mathematical and Computational Sciences has proposed to include the following new Elective course for the B.Tech Programme Computational Data Science. **MA539: Multivariate Statistical Analysis (3-0-0)3** The details are provided in **Annexure-VI Page-1**	The **BOS resolved to recommend** the proposal of the DFC of the Department of Mathematical and Computational Sciences to include the new Elective course for the B.Tech Programme Computational Data Science.	**For Senate approval**

b) Inclusion of new electives in M.Tech (CDS)

Proposal	BOS Resolution	
The DFC of the Department of Mathematical and Computational Sciences has proposed to include the following new elective courses for the M.Tech Program Computational Data Science. **MA872: Probabilistic Graphical Models (3-0-0)3** **MA873: Data Analysis and Visualization (3-0-0)3** **MA874: Deep Learning (3-0-0)3** **MA875: Artificial Neural Networks (3-0-0)3** **MA876: Estimation Theory (3-0-0)3** The details are provided in Annexure-VI Page-2.	The **BOS resolved to recommend** the proposal of the DFC of the Department of Mathematical and Computational Sciences to include the new Elective courses for the M.Tech Programme Computational Data Science	**For Senate approval**

c) Inclusion of new 900 level courses

Proposal	BOS Resolution	
The DFC of the Department of Mathematical and Computational Sciences has proposed to include the following 900 level courses. **MA949: Numerical Linear Algebra (4-0-0)4** **MA950: Matrix Analysis (4-0-0)4** **MA951: Iteration Theory (4-0-0)4** **MA952: Cryptography (4-0-0)4** **MA953: Domination in Graphs (4-0-0)4** **MA954: Sampling Theory and Methods (4-0-0)4**	The **BOS resolved to recommend** the proposal of the DFC of the Department of Mathematical and Computational Sciences to include the 900 level courses.	**For Senate approval**

ITEM No.: 39-BOS-7 Proposals of Department of Physics

a) Modification in the Course

Proposal	BOS Resolution	
The DFC of the Department of Physics has proposed the following modifications in the following course. **PH755:Computational Physics (3-0-1)4**	The **BOS resolved** that modification in the course PH755 may be taken up during major revision of curriculum as it is a core course.	**Reporting to Senate**

b) Introduction of new elective course in M.Sc. Physics

Proposal	BOS Resolution	
The DFC of the Department of Physics has proposed to introduce the following new elective course in M.Sc. Physics. **Basics of Quantum Computing (3-0-2)4** The details are provided in **Annexure-VII Page-2**	The **BOS resolved to recommend** the proposal of the DFC of the Department of Physics to introduce the new elective course.	**For Senate approval**

ITEM No.: 39-BOS-8 Inclusion of External Additional Guides

a) Department of Chemical Engineering

Proposal	BOS Resolution	
The DRPC of Department of Chemical Engineering has proposed that Dr. Ranjana Ray Chaudhari, Associate Professor and Head, Department of Regional Water Studies, TERI School of Advanced Studies, New Delhi to be considered as an additional Research Guide for the M.Tech (Research) student Mr. Sushil Kumar. **The details are enclosed as Annexure VIII Page:1-9**	The **BOS resolved to consider** Dr. Ranjana Ray Chaudhari, Associate Professor and Head, Department of Regional Water Studies, TERI School of Advanced Studies, New Delhi as an additional Research Guide for the M.Tech (Research) student Mr. Sushil Kumar.	**For Senate approval**

b) Department of Mechanical Engineering

Proposal	BOS Resolution	
The DRPC of Department of Mechanical Engineering has proposed that Dr. Yogeesh D. Kamat, Consultant Specialist, Hip & Knee Surgeon, Department of Orthopedics, KMC, Mangaluru to be considered as an additional Research Guide for the Ph.D student Mr. Bishwaranjan Das. **The details are enclosed as Annexure VIII Page: 10-23.**	The **BOS resolved to consider** Dr. Yogeesh D. Kamat, Consultant Specialist, Hip and Knee Surgeon, Department of Orthopedics, KMC, Mangaluru as an additional Research Guide for the Ph.D student Mr. Bishwaranjan Das.	**For Senate approval**

c) Department of Metallurgical and Materials Engineering

Proposal	BOS Resolution	
The DRPC of Department of Metallurgical and Materials Engineering has proposed that Dr. Avinash L., Assistant Professor, Department of Mechanical Engineering, Nitte Meenakshi Institute of Technology, Bengaluru to be considered as an additional Research Guide for the Ph.D student Ms. Preethi J. Aradhya. **The details are enclosed as Annexure VIII Page: 24-42.**	The **BOS resolved to consider** Dr. Avinash L., Assistant Professor, Department of Mechanical Engineering, Nitte Meenakshi Institute of Technology, Bengaluru as an additional Research Guide for the Ph.D student Ms. Preethi J. Aradhya.	**For Senate approval**

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ITEM No.: 39-BOS-9 Recognition as Ph.D Research Guide (Internal)

The BOS noted the recognition of the following faculty members as Ph.D Guides after the 38th BOS meeting based on the recommendations of the respective DRPC.

Department	Name	Designation	Ph.D from Institute	Reporting to Senate
Civil Engg.	Dr. Jacklin Jeke Nilling	Assistant Professor	IIT Kanpur	
Civil Engg.	Dr. Saranya P	Assistant Professor	IIT Madras	
Computer Science & Engg.	Dr. Shridhar Sanshi	Assistant Professor	NITK Surathkal	
Computer Science & Engg.	Dr. Manjanna B	Assistant Professor	IIT Guwahati	
E& C Engg.	Dr. Bini A A	Assistant Professor	NITK Surathkal	
E& C Engg.	Dr, Shikha Baghel	Assistant Professor	IIT Guwahati	
Information Technology	Dr. Purushothama B R	Associate Professor	NIT Warangal	
Information Technology	Dr. Janani T	Assistant Professor	NIT Tiruchirappalli	
Information Technology	Dr. Dinesh Naik	Assistant Professor	NITK Surathkal	
MACS	Dr. Pushpajit A Khaire	Assistant Professor	VNIT Nagpur	
MACS	Dr. Samadrita Bera	Assistant Professor	IIT Dhanbad	
MACS	Dr. Vidyadhar Upadhya	Assistant Professor	IISc. Bangalore	
Metallurgical and Materials Engg.	Dr. Lipak Kumar Sahoo	Assistant Professor	IIT Madras	
School of Humanities, Social Sciences and Mgt.	Dr. Rahul Sivarajan	Assistant Professor	TATA Institute of Social Sciences, Mumbai	

Also requested the Senate to approve the proposal that all the Assistant Professors are to be recognized as Research Guides from the date of joining the Institute.

The Associate Dean (UG) proposed the vote of thanks to the members.

Sandhya.

Secretary-BOS, NITK

G.S. Devakirish
18.3.24

Chairman-BOS-NITK