

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

BOARD OF STUDIES MEETING

DATE : 26th June 2024

VENUE: Dept. of ISE, NHCE

TIME : 10.00 am to 1.00pm

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AGENDA FOR THE MEETING

Agenda 1: BE - Scheme and Syllabus for semester III & IV of Batch 2023-2027 – Discussion and Approval (NEP 160 Credits)

Agenda 2: BE - Scheme and Syllabus for semester V & VI of Batch 2022-2026 – Discussion and Approval (NEP 160 Credits)

Agenda 3: BE - Scheme and Syllabus for semester VII & VIII of Batch 2021-2025 – Discussion and Approval (NEP 160 Credits)

Agenda 4: Discussion and Approval of Evaluation Metrics in CIE component

Agenda 5: Best Practices followed in Department

Agenda 6: Concluding Remarks

LIST OF MEMBERS

SI. No	Category	Nomination of the	Name of the person	Designation & Affiliation
1	Head of the	Chairperson	Dr. Vandana C P	Associate Professor & HOD,
	Department			Dept. of ISE
2	Special Invitees	1	Dr. R.J Anandhi	Professor and Dean
				-Academics, NHCE
		2	Dr. B. Rajalakshmi	Prof & HoD – CSE, NHCE
		3	Dr. Swathi. B	Assoc. Prof. & HoD, Dept.
				of Computer Science
				Engg(Data Science), NHCE
	Faculty	Member		
3	member at	1	Dr. K. Saravanan	Professor, Dept. of ISE,
	different level			NHCE, Bangalore
	with different	2	Dr. Rajalakshmi	Assoc. Prof., Dept. of ISE,
	specialization			NHCE, Bangalore
		3	Dr. Kalaivani D	Assoc. Prof., Dept. of ISE,
				NHCE, Bangalore
		4	Dr. S.	Assoc. Prof., Dept. of ISE,
			Sivaramakrishnan	NHCE, Bangalore
		5	Mrs. J. Karthiyayini	Sr. Assistant Professor, Dept.
				of ISE, NHCE, Bangalore
		6	Mrs. Jenita Subash	Sr. Assistant Professor, Dept.
				of ISE, NHCE, Bangalore
	Subject expert	Member		

SI. No	Category	Nomination of the	Name of the person	Designation & Affiliation
4	from outside	1	Prof. Anandhi	Academic Technical Expert
	the college		Giridharan	
	nominated by		Principal Research	
	Academic		Scientist, IISc,	
	Council		Bangalore	
		2	Dr. Anitha,	
			Professor, Dept. of	
			CSE,	
			BNM Institute of	
			Technology,	
5	Experts from	Member		
	outside the	1	Dr. Sagar B.M,	VTU Nominee
	college		Professor & Head,	
	nominated by		Dept. of ISE,	
	VTU		R.V. College of	
			Engineering,	
	Representative	Member		
6	from Industry /	1	Mr. Prasad L.K	Industry Technical Expert
	Corporate		Founder & Managing	
	sector / allied		Director,	
	area related to		Acceleron Labs Ltd.,	
	placements,		Bangalore.	
	nominated by			

SI. No	Category	Nomination of the	Name of the person	Designation & Affiliation
	Academic	2	Mr. Satyam Jakkula	
	Council		Senior Program	
			Manager- Supplier	
			Management	
			IBM, Bangalore	
	Post Graduate		Membe	r
7	meritorious	1	Mr.Aditya	Alumni
	alumni		Srivastava,	
	nominated by		Packaged App	
	Principal		Development,	
			Senior Analyst,	
		2	Mr. Mohamed Nafeel	
			Advanced Software	
			Engineer,	
			Honey Well,	
			Member	
8	Co-opted	1	Mr. Aniz Mirza,	Placement Representation
	members		Head Placement &	
			Corporate relations,	
			NHCE, Bangalore	
		2	Dr. Divya K.V,	Academic and Research
			Sr. Assistant	Expertise
			Professor,	

SI. No	Category	Nomination of the	Name of the person	Designation & Affiliation
		3	Ms. Shruthi,	
			Sr.Assistant	
			Professor and	
			Placement	
			Coordinator,	

WELCOME ADDRESS BY THE CHAIRMAN OF BOS AND INTRODUCTION OF MEMBERS

Minutes

The **BOARD OF STUDIES (2023 – 24)** meeting was held on 26th June 2024 in hybrid mode using Google Meet with internal members, 4 external members (in person) and 3 external members joined online.

Dr. Vandana C.P., Chairman of BOS welcomed the BOS Committee members. She presented the agenda of the Board of Studies meeting to the members. She introduced the Internal and External BOS members. She started the discussion on the Scheme and syllabus of B.E semester III & IV of Batch 2023-2027, and followed by semester V & VI of Batch

2022-2026 and semester VII & VIII of Batch 2021-2025 which was shared via email to all the Board Members earlier as well.

AGENDA - 1

TITLE

Agenda 1: BE - Scheme and Syllabus for semester III & IV of Batch 2023-2027 – Discussion and Approval (NEP 160 Credits)

- 1. Chairman of BOS, presented the scheme and syllabus of semester III and IV semesters of the 2023-2027 batch
- 2. The panel members proposed inclusion of "Theory of Computation" in III or IV semesters.
- 3. The panel members recommended renaming the "Mini Project" 22ISE48 to "Minor Project" for clarity and alignment with academic terminology.
- 4. The panel members advised to remove the subject "File Structures" 22ISE463 from the IV semester's Ability Enhancement course –III due to its non-relevance in the current technology trends.
- 5. VTU Nominee suggested to offer programming languages like C/C++ /Java for the lab execution of the course 'Advanced Data Structures Lab' 22ISL33 to broaden student knowledge. It need not be restricted to C language.
- 6. VTU nominee recommended renaming the course "Mathematical Foundations for Computing Science" 22MAC31 in the III semester to more precise title which would reflect its content as outlined in the syllabus. Their suggestion is to incorporate the specific module title into the course name. This adjustment aims to provide a clearer understanding of the syllabus content directly through the course title.
- 7. The panel members suggested to update the book published edition year to reprint with latest years.
- 8. During the presentation the implementation of Non-credit Mandatory Courses (NCMC) such as National Service Scheme (NSS), Physical Education (PE) (Sports and Athletics) and Yoga was explained.
- 9. BOS chairman explained the process of defining the CO for the various courses followed in the department.
- 10. The panel members suggested to integrate the "Operating System lab" 22ISL44 with theory subject on Operating Systems", 22ISE44. This would reduce the number of labs in 4th semester.

- 11. During CIE and SEE evaluation, except for 22ISL44, the lab programs must be a modification of the question in the syllabus copy. BOS chairman presented that the same practice is followed for the course 'DBMS' 22ISL42, 'OOPS with Java' 22ISL43, C# & .NET 22ISE45 in department for previous batches. Also 'IoT programing' course, ISE464, part of CIE component is evaluated as project based.
- 12. Academic Expert Dr. Anitha recommended the incorporation of project based learning PBL.

AGENDA - 2

TITLE

Agenda 2: BE - Scheme and Syllabus for semester V & VI of Batch 2022-2026 – Discussion and Approval (NEP 160 Credits)

- 1. Chairman of BOS, presented the scheme and syllabus of semester V and VI of Batch 2022-2026.
- 2. The panel members recommended the shifting of the course "Design and Analysis of Algorithms" 22IS52 to 4th semester from its current placement in the 5th semester, as delaying it until the 5th semester is suggested to be too late. BOS Chairman, represented the placement perspective of placing it in 5th semester, which would be good when the company drives happen during 6th sem.
- 3. The panel members suggested to reframe the syllabus of the course Compiler Design, 22ISE543 to include Finite Automata concepts in Modules 1 and 2.
- 4. The industry expert Mr. Prasad L.K suggested the inclusion of the course "Storage Area Network" in the professional elective course-II list for the VI semester.
- 5. Dr. Anandhi Giridharan suggested to incorporate Edge computing into Module 5 for the course "Principles of Cloud Computing" 21ISE542
- The ability enhancement course-V offered in VI semester was highly appreciated by BoS member Mr. LK Prasad. PM using GIT course 22ISE671 was highly recommended by industry expert Mr. Satyam Jakkula.

- 7. Academic expert, Dr. Anandhi Giridharan advised revising Module 4 -Wireless Networks within the course CN -21ISE63 to incorporate an introduction to 5G/6G technologies.
- 8. After a detailed discussion on the syllabus the board members approved the syllabus of 5th and 6th semester of Batch 2022-26.

AGENDA - 3

TITLE

Agenda 3: BE - Scheme and Syllabus for semester VII & VIII of Batch 2021-2025 – Discussion and Approval (NEP 160 Credits)

- 1. Dr. Vandana C.P presented the scheme and syllabus of semester VII to VIII of batch 2021-2025.
- 2. The panel members emphasize the use of industry-oriented problem statements and integrate them into Major Project assessments.
- 3. The panel members suggested to implement programming experiments initially in CN lab-21ISL63and transition to project-based learning for higher semesters.
- 4. The panel members suggested to facilitate industry tie-ups for Practical learning experiences in "Mobile App Development",21ISE71.
- 5. BoS Chairman suggested that the course 21ISE71, CIE component (25marks) will be evaluated based on projects created by students using Mobile App platform. Hence the lab component need not be included. The same was approved by BOS members.
- 6. BOS chairman presented that the Testing phase of the Project work 21ISE73, needs to be executed using automation tools like Selenium or Cucumber which will be taught as a part of the course, 'Software Testing and Automation', 21ISE72. The same was approved by BOS members.
- 7. After a detailed discussion on the syllabus the board members approved the syllabus of 7th and 8th semester of batch 2021-2025, which incorporated the previous suggestions given by BOS.
- **8.** BoS member suggested to offer "Quantum Computing" as an elective for the VIII semester, professional elective-III potentially replacing "Computer Graphics".
- **9.** Prompt Engineering inclusion in elective list was appreciated by BoS members.

10. Dr. Anandhi Giridharan suggested the importance of Entrepreneurship and its relevance in 8th semester course.

AGENDA - 4

TITLE

Agenda 4: Discussion and Approval of Evaluation Metrics in CIE component

Minutes

- 1. BoS Chairman presented the alternate assessment metrics in CIE component of various courses.
- 2. Dr. Anitha suggested that any one course can be completely mapped to NPTEL course.
- **3.** BoS members suggested that Paper presentation can be considered in CIE assessment. BoS Chairman discussed that this practice is already implemented for final year projects.

AGENDA - 5

TITLE

Agenda 5 : Best Practices

Minutes

BOS Chairman presented the following Best Practices:

- 1. Mini Project idea conversion to research papers
- 2. Final year students project as multidisciplinary: Research paper and patent Startup Initiatives
- 3.Lab Viva voce marks mapped to Domain based MCQ.
- 4. Placement assessment platform usage and completion tracking by mentors
- 5. Working Thinking Saturdays Students made to complete placement practice assessments.
- 6.Innovative teaching techniques
- 7. Domain based technical training
- 8. Minor degree & BE Honours
- 9. Club activities- Robothon club, Literary club, Dance club

10.Activity point completion encourage per semester and linked with Social Connect Responsibility course.

TITLE

Suggestions and Recommendations from Board Members

The suggestions from various BOS members are presented as following:

Dr. Sagar, VTU Nominee

- **1.** Dr. Sagar recommended introducing "Theory of Computation" in 5th semester.
- 2. Mini project to be renamed as Minor project.
- 3. Design and Analysis of Algorithm courses suggestion to be shifted to 4th semester.
- **4.** Project-based labs can be introduced in higher semesters such as DBMS and Data Science, allowing students to implement solutions based on problem statements with small assessment patterns.
- **5.** Verify the years of publication or reprint of the textbooks and references in syllabus.
- **6.** Web links to be rechecked as over the time, they may be old.
- 7. Suggestions were made to include Prompt Engineering which is already in 8th semester.
- **8.** He suggested to offer "Quantum Computing" as an elective for the VIII semester under Professional elective-III potentially replacing "Computer Graphics".

Dr. Anandhi Giridharan, Academic Technical Expert

- Prof. Dr. Anandhi Giridharan recommended to revise Module 4 of "Wireless Networks" within the course Computer Networks-21ISE63 to incorporate an Introduction to 5G/6G technologies.
- 2. She also suggested to include Edge Computing in the course 'Principles of Cloud Computing'-21ISE542 in 5th semester for 2022-26 batch.
- 3. Dr. Anandhi Giridharan suggested the importance of Entrepreneurship and its relevance in 8th semester course. She suggested to motivate the final year students to do the final year projects based on societal issues.

- 4. She recommended incorporating programming experiments into the CN lab and shifting towards project-based learning. BoS Chairman discussed the usage of agreement with Cisco Packet Tracer for simulation.
- 5. Dr. Anandhi Giridharan also suggested the inclusion of Gate coaching among best practices, where selected students could receive Gate coaching from the institution.

Mr. Prasad L.K, Industry Technical Expert

- 1. Mr. Prasad appreciated the BOS process and mentioned that the scheme and syllabus of ISE department is in line with the industry requirements and standards. He inquired about the availability of Cloud lab. BoS Chairman replied that HP Vertica Centre of Excellence Lab is available in our institution.
- 2. He proposed industry tie-ups and starting internships from the 3rd semester.
- 9. He also suggested to include "Storage Area Network" in the professional elective course-II list for the VI semester.
- 3. He suggested to include System programming in Linux operating system and inquired about embedded systems in the curriculum.

Ms. Anitha, Academic Expert

- 1. Dr. Anitha suggested that the virtual lab links used in the References has to be verified.
- 2. She suggested that one course can be completely mapped to NPTEL.
- 4. She addressed that there is no lab in software testing course. BoS chairman responded that the Testing phase of the Project work 21ISE73, needs to be executed using automation tools like Selenium or Cucumber which will be taught as a part of the course, 'Software Testing and Automation', 21ISE72. The same was approved by BOS members.
- 5. She suggested that Mobile Application Development-21ISE71 can be made as integrated course. BoS Chairman discussed that student CIE component would be evaluated based on developing mobile applications, giving them practical exposure in the process.

Mr. Satyam Jakkula, Industry Technical Expert

- 1. Mr. Satyam Jakkula suggested including the course "Higher-Level Network Security" as an elective subject in the 7th semester, following the elective "Cyber Security" in the 6th semester.
- 2. DevOps can be added instead of information theory & coding in 3rd sem.
- 3. IBM skill build courses can be extended to major elective courses and labs.

Mr. Aditya, Alumnus from 2012-2016 Batch

- 1. Suggested to include debugging skill enrichment in curriculum
- 2. Generative AI related topic may be included in courses offered.

Mr. Mohammed Khalid, Current 8th Sem Student from 2020-2024 Batch

1. Mr. Mohammed Khalid suggested including course on LLM models. BOS chairman presented that Prompt engineering included in 8th semester.

AGENDA - 6

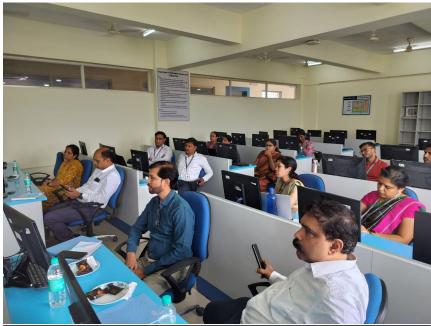
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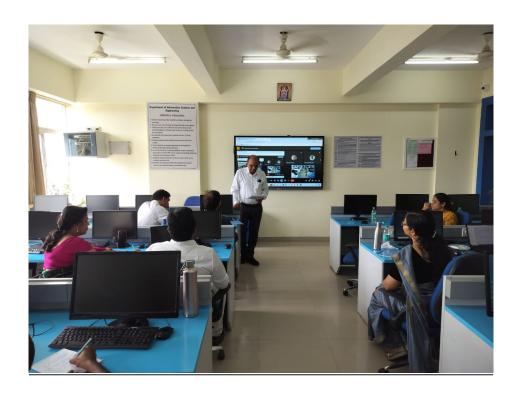
Agenda 6: Concluding Remarks

- 1. BOS chairman enlightened that the students and faculty are trained to write proposals for funding agencies.
- 2. BOS chairman discussed and expressed her gratitude to the BOS members for their valuable comments and suggestions to enrich the syllabus.

SCREENSHOTS

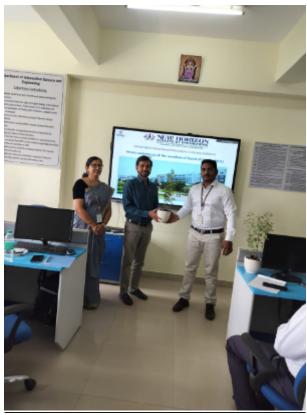




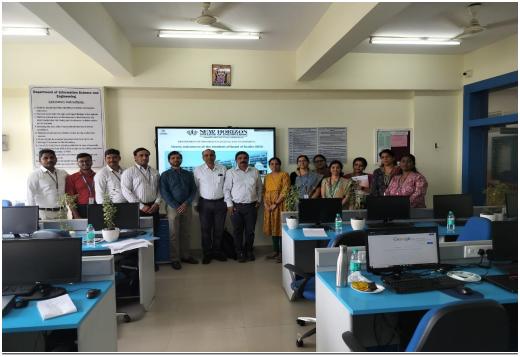












VOTE OF THANKS BY THE CHAIRMAN-BOS

BOS Chairman delivered Vote of Thanks and appreciated each and every Member of the
Board for their contribution and valuable suggestions provided.