

GNIT

GURUNANAK INSTITUTE OF TECHNOLOGY

**Approved by A.I.C.T.E., New Delhi
Affiliated to MAKAUT, West Bengal**

GNIT

**MINUTES OF THE MEETING, 2022 OF BOARD OF
STUDIES OF COMPUTER SCIENCE AND
ENGINEERING DEPARTMENT HELD ON
11/03/2022 AT 11:00 A.M. FOR B.TECH**

Ref. No : GNIT/CSE/BOS/2022/01

Date: 04/03/2022

NOTICE

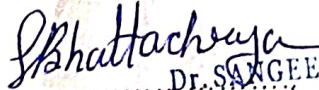
It is hereby informed to all the members of the Board of Studies that a meeting will be held in blended mode on 11/03/2022 from 11:00 a.m. onwards for B.Tech in smart class room and the Google meet link is given below .The agendas are attached below:

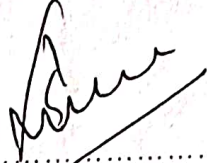
Agenda:

1. Confirmation of Minutes of last BOS Meeting
2. Approval of Action Taken Report of the resolutions taken in the last meeting
3. Analysis of students performance in project and innovative activities with respect to Regulation 18 curriculum.
4. Discussion on the formation of R23 curricular as per guidelines of NEP2020.
5. Discussion on feedback on curriculum R21

The link of the meeting is <https://meet.google.com/akh-yviw-kuf>.

All are requested to attend the meeting.


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Dr. SANGEETA BHATTACHARYA
Head of the Department
Computer Science and Engineering
Chairperson, BOS
Guru Nanak Institute of Technology
Sodepore, Panihati, Kol-114


.....
MS. Srabani Kundu
Convener, BoS

Copy To:

1. Principal
2. Registrar
3. Prof. Utpal Raychowdhury, Dean Academics
4. Prof. Dr. Kaushik Roy, Dept. of Computer Science, West Bengal State University
5. Dr. Ram Sarkar, Dept. of Computer Science & Engineering, Jadavpur University
6. Mr. Indranil Roy Chowdhury, Sr. Manager – AI/ML & Cognitive, CTS
7. All Internal BoS Members

MINUTES OF THE MEETING

Referring to the notice no. GNIT/CSE/BOS/2022/01, dated 04/03/2022, a meeting of the Board of Studies of Computer Science and Engineering department for B.Tech was held on 11/03/2022 from 11:00 a.m. in blended mode in smart class room and in the Google Meet platform.

Members Present:

Sl. No.	Name of the Member	Designation
External		
1	Dr. Kaushik Roy	Dept. of Computer Science. West Bengal State University
2	Dr. Ram Sarkar	Jadavpur University
3	Mr. Indranil Roy Chowdhury	Sr. Manager – AI/ML & Cognitive, CTS
Internal		
1	Dr. Sangeeta Bhattacharya	HoD and Chairperson, BoS
2	Ms. Srabani Kundu	Convener, BoS
3	Dr. Suranjan Ghose	Professor
4	Dr. Suman Bhattacharya	Professor
5	Dr. Mahamuda Sultana	Associate Professor
6	Dr. Rupak Chakraborty	Associate Professor
7	Dr. Sayantan Nath	Associate Professor
8	Dr. Amrut Ranjan Jena	Associate Professor
9	Dr. Ananjan Maiti	Associate Professor
10	Ms. Ipsita Saha	Associate Professor
11	Mr. Moloy Dhar	Asst. Professor
12	Ms. Mandira Banik	Asst. Professor
13	Mr. Sourish Mitra	Asst. Professor
14	Ms. Sayani Chandra	Asst. Professor
15	Ms. Pallabi Das	Asst. Professor
16	Ms. Bidyutmal Saha	Asst. Professor
17	Mr. Rafiqul Islam	Asst. Professor
18	Mr. Debraj Das	Asst. Professor
19	Mr. Krishnendu Chowdhury	Asst. Professor
20	Mr. Nirupam Saha	Asst. Professor
21	Mr. Ahana Ghosh	Asst. Professor
22	Ms. Masuma Sultana	Asst. Professor
23	Ms. Paramita Sarkar	Asst. Professor

Members Absent:

Internal		
Sl. No.	Name of the Member	Designation
1	Mr. Deepayan Pal	Asst. Professor
2	Mr. Abhirup Sinha	Asst. Professor
3	Mr. Sougata Sarkar	Asst. Professor
4	Dr. Moumita Das	Associate Professor

The discussion was based on the following agenda:

Agenda:

1. Confirmation of Minutes of last BOS Meeting.
2. Approval of Action Taken Report of the resolutions taken in the last meeting.
3. Analysis of students performance in project and innovative activities with respect to Regulation 18 curriculum.
4. Discussion on the formation of R23 curricular as per guidelines of NEP2020 approval of new courses added in R21 curriculum.
5. Feedback on curriculum R21 from different stakeholders.

Resolutions:

The following resolutions are made agenda wise as per the suggestions from the experts and members:

Agenda 1: Confirmation of Minutes of last BOS Meeting

The minutes of last BOS meeting was duly confirmed and approved by the members.

Agenda 2: Approval of Action Taken Report of the resolutions taken in the last meeting

The members noted the Action taken report of the last held BOS meeting's resolution.

Agenda 3: Analysis of student's performance in project and innovative activities with respect to Regulation 18 curriculum.

It has been analyzed that participation in different MOOCs courses like courser, NPTEL ,project based competition ,innovative activities and number of internship with respect to Regulation 18 curriculum have been increased

Agenda 4: Discussion on the formation of R23 curricular as per guidelines of NEP2020 approval of new courses added in R21 curriculum

Based on different stake holders such as students', employer, and alumni feedback and regulatory body's guidelines, a brief discussion has been done on the formation of R23 curricular taking into consideration the guideline of National Education Policy 2020


Based on feedback and regulatory body's guidelines, several courses such as Discrete Mathematics, Programming using Python, Programming Using Python, Neural Networks and Deep Learning, etc. have been introduced to meet current industry need. BoS members approved the addition of the new courses in R21 curriculum (vide Annexure-I).


Agenda 5: Feedback on curriculum R21 from different stakeholders

BoS members reviewed 1st and 2nd semester students' feedback for project and innovative activities in Regulation 21 and suggested to move forward the work in line with startup and entrepreneur regards. Also feedback on curriculum R21 from different stakeholders has been taken so that more improvement and action can be taken for the betterment of the department as well as for the students.

The suggestions are approved by all members present in the BoS meeting.

The meeting ended with vote of thanks by the Convener of BoS.


Dr. Sangeeta Bhattacharya
Head of the Department
Computer Science and Engineering
Guru Nanak Dev Engineering College
BoS, Panihati, Kol-114


Ms. Srabani Kundu
Convener, BoS

ANNEXURE-I

New Courses Introduced in R21	
Course Code	Course Name
PR192	Skill Development I: Soft Skill
PR292	Skill Development II: Life Skill
M301	Discrete Mathematics
ESC301	Analog Electronics
CS301	ITWorkshop(SciLab/MATLAB/C++)
HSMC 303	Universal Human Values 2: Understanding Harmony
PR392	Skill Development III: Technical Seminar Presentation
HSMC 402	Gender Culture and Development
BSC401	Probability and Statistics
ESC491	Programming using Python
PR492	Skill Development IV: Soft Skill & Aptitude-I
MC 481	Learning an Art Form [vocal or instrumental, dance, painting, clay modeling, etc.] OR Environmental Protection Initiatives
CS-T-501	Advanced Algorithms
CS-D-501	Neural Networks and Deep Learning
CS591	Compiler Design Lab
CS-T-591	Advanced Algorithms Lab
CS-S-591	Advanced Computer Architecture Lab
CS-D-591	Neural Networks and Deep Learning Lab
PR 592	Skill Development V: Soft Skill & Aptitude-II
CS-T-602	Parallel and Distributed Algorithms
CS-A-602	Human Computer Interaction
CS-S-691	Advanced Operating Systems Lab
CS-D-691	Machine Learning Lab
PR 692	Skill Development VI: Soft Skill & Aptitude-III
MC 601	Intellectual Property Right
CS-T-701	Information Theory and Coding
CS-S-701	Ad-Hoc and Sensor Networks
CS-T-702	Quantum Computing
CS-701A	High Performance Computing
CS-701C	Optimization Techniques
CS-702B	Soft Skills and Interpersonal Communication
CS-702C	Foreign Language
CS-T-791	Information Theory and Coding Lab
CS-S-791	Ad-Hoc and Sensor Networks Lab
CS-D-791	Data Mining and Data Warehousing Lab
CS-A-791	Cloud Computing Lab
CS-791A	High Performance Computing Lab
CS-791B	Image Processing Lab
CS-791C	Optimization Techniques Lab
PR 792	Industrial Training / Internship

PR 793	Skill Development VII: Seminar & Group Discussion
MC 781	Entrepreneurship & Innovation Skill
CS-T-801	Advance Graph Algorithms
PR 792	Industrial Training / Internship
CS-D-801	Big Data Analytics
CS-801A	Human Resource Development and Organizational Behavior
CS-802B	History of Science
PR 892	Grand Viva

ANNEXURE II

1ST Year 1st Semester: 1st Semester

Sl. No.	Category	Course Code	Course Title	Hours per week				Credits
				L	T	P	Total	
THEORY								
1	Basic Science course	PH101	Physics-I	3	0	0	3	3
2	Basic Science course	M101	Mathematics –I	4	0	0	4	4
3	Humanities and Social Sciences including Management	HSMC 101	Professional Communication	2	0	0	2	2
PRACTICAL								
4	Basic Science course	PH191	Physics-I Lab	0	0	3	3	1.5
5	Engineering Science Courses	ME 191	Workshop & Manufacturing Practices Lab	0	0	3	3	1.5
6	PROJECT	PR191	Theme based Project I	0	0	1	1	0.5
7	PROJECT	PR192	Skill Development I: Soft Skill	0	0	1	1	0.5
MANDATORY ACTIVITIES / COURSES								
8	Mandatory Course	MC181	Induction Program	0	0	0	0	2Units
TOTAL CREDIT								13.0

1ST Year 2nd Semester: 2nd Semester

Sl. No.	Category	Course Code	Course Title	Hours per week				Credits
				L	T	P	Total	
THEORY								
1	Basic Science courses	CH 201	Chemistry-I	3	0	0	3	3
2	Basic Science courses	M 201	Mathematics –II	4	0	0	4	4
3	Engineering Science Courses	EE 201	Basic Electrical Engineering	3	0	0	3	3
4	Engineering Science Courses	CS 201	Programming for Problem Solving	3	0	0	3	3
PRACTICAL								
5	Basic Science course	CH 291	Chemistry-I Lab	0	0	3	3	1.5
6	Humanities and Social Sciences including Management courses	HSMC 291	Professional Communication LAB	0	0	2	2	1.0

7	Engineering Science Courses	EE 291	Basic Electrical Engineering Lab	0	0	3	3	1.5
8	Engineering Science Courses	ME 292	Engineering Graphics & Design Lab	0	0	3	3	1.5
9	Engineering Science Courses	CS 291	Programming for Problem Solving Lab	0	0	3	3	1.5
10	PROJECT	PR291	Theme based Project II	0	0	1	1	0.5
11	PROJECT	PR292	Skill Development II: Life Skill	1	0	0	1	0.5
MANDATORY ACTIVITIES / COURSES								
12	Mandatory Course	MC281	NSS/Physical Activities / Meditation & Yoga / Photography	0	0	3	3	3 Units
TOTAL CREDIT								21

Collective Data from 3rd to 6th Semester (Summer/Winter Training during Semester Break & Internship should be done after 5th Semester or 6th Semester). All related certificates to be collected by the training/internship coordinator(s).

**** MOOCS COURSES for HONOURS/MINOR Degree are Program specific and to be taken from MOOCS BASKET**

2nd Year 1st Semester: 3rd Semester								
Sl. No.	Category	Course Code	Course Title	Hours per week				Credits
				L	T	P	Total	
A. THEORY								
1	Basic Science course	M301	Discrete Mathematics	3	0	0	3	3
2	Engineering Science Courses	ESC301	Analog Electronics	3	0	0	3	3
3	Engineering Science Courses	ESC302	Digital Logic and Electronics	3	0	0	3	3
4	Program Core Course	CS301	ITWorkshop (SciLab/MATLAB/C++)	3	0	0	3	3
5	Program Core Course	CS302	Data Structures	3	0	0	3	3
6	Humanities and Social Sciences including Management courses	HSMC 303	Universal Human Values 2: Understanding Harmony	3	0	0	3	3
B. PRACTICAL								
7	Engineering Science Courses	M (CS)391	Numerical Methods Lab	1	0	3	3	2.5
8	Engineering Science Courses	ESC391	Digital and Analog Electronics Lab	0	0	3	3	1.5
9	Program Core Course	CS391	ITWorkshop Lab (SciLab/MATLAB/C++)	0	0	3	3	1.5
10	Program Core Course	CS392	Data Structures Lab	0	0	3	3	1.5
11	PROJECT	PR391	Theme based Project III	0	0	1	1	0.5
12	PROJECT	PR392	Skill Development III: Technical Seminar Presentation	1	0	0	1	0.5
C. MANDATORY ACTIVITIES / COURSES								
13	MC	MC 301	Environmental Science	0	0	3	3	3 Units
TOTAL CREDIT WITHOUT MOOCS COURSES								26.0
D. MOOCS COURSES**								
14	MOOCS COURSES	HM301	MOOCS COURSE-I	1	3	1	4	4
TOTAL CREDIT WITH MOOCS COURSES								30

Collective Data from 3rd to 6th Semester (Summer/Winter Training during Semester Break & Internship should be done after 5th Semester or 6th Semester). All related certificates to be collected by the training/ internship coordinator(s).

** MOOCS COURSES for HONOURS/MINOR Degree are Program specific and to be taken from MOOCS BASKET

2nd Year 2nd Semester: 4th Semester

Sl. No.	Category	Course Code	Course Title	Hours per week				Credits
				L	T	P	Total	
A. THEORY								
1	Program Course	Core CS401	Computer Organization and Architecture	3	0	0	3	3
2	Program Course	Core CS402	Design and Analysis of Algorithms	3	0	0	3	3
3	Program Course	Core CS403	Operating Systems	3	0	0	3	3
4	Program Course	Core CS404	Formal Language and Automata Theory	3	0	0	3	3
5	Humanities and Social Sciences including Management courses	HSMC 402	Gender Culture and Development	2	0	0	2	2
6	Basic Science course	BSC401	Probability and Statistics	3	0	0	3	3
B. PRACTICAL								
7	Program Course	Core CS491	Computer Organization and Architecture Lab	0	0	3	3	1.5
8	Program Course	Core CS492	Design and Analysis of Algorithms Lab	0	0	3	3	1.5
9	Program Course	Core CS493	Operating Systems Lab	0	0	3	3	1.5
10	Engineering Science Courses	ESC491	Programming using Python	0	0	3	3	1.5
11	PROJECT	PR 491	Theme based Project IV	0	0	1	1	0.5
12	PROJECT	PR492	Skill Development IV: Soft Skill & Aptitude-I	1	0	0	1	0.5
C. MANDATORY ACTIVITIES / COURSES								
13	MC	MC 481	Learning an Art Form [vocal or instrumental, dance, painting, clay modeling, etc.] OR Environmental Protection Initiatives	0	0	0	3	3Units
TOTAL CREDIT WITHOUT MOOCS COURSES								24
D. MOOCS COURSES								
14	MOOCS COURSES	HM401	MOOCS COURSE-II	3	1	0	4	4
TOTAL CREDIT WITH MOOCS COURSES								28

Collective Data from 3rd to 6th Semester (Summer/Winter Training during Semester Break & Internship should be done after 5th Semester or 6th Semester). All related certificates to be collected by the training/ internship coordinator(s).

3rd Year 1st Semester: 5th Semester

Sl. No.	Category	Course Code	Course Title	Hours per week				Credits
				L	T	P	Total	
A. THEORY								
1	Humanities and Social Sciences including Management courses	HSMC 505	Principles of Management	2	0	0	2	2
2	Program Core Course	CS501	Compiler Design	3	0	0	3	3
3	Program Core Course	CS502	Database Management Systems	3	0	0	3	3
4	Program Core Course	CS503	Object Oriented Programming using Java	3	0	0	3	3
5	Professional Elective courses	CS-T-501	Advanced Algorithms	3	0	0	3	3
		CS-S-501	Advanced Computer Architecture					
		CS-D-501	Neural Networks and Deep Learning					
		CS-A-501	Artificial Intelligence					
B. PRACTICAL								
6	Program Core Course	CS591	Compiler Design Lab	0	0	3	3	1.5
7	Program Core Course	CS592	Database Management Systems Lab	0	0	3	3	1.5
8	Program Core Course	CS593	Object Oriented Programming using Java Lab	0	0	3	3	1.5
9	Professional Elective courses	CS-T-591	Advanced Algorithms Lab	0	0	3	3	1.5
		CS-S-591	Advanced Computer Architecture Lab					

		CS-D-591	Neural Networks and Deep Learning Lab					
		CS-A-591	Artificial Intelligence Lab					
10	PROJECT	PR 591	Minor Project I	0	0	3	2	1
11	PROJECT	PR 592	Skill Development V: Soft Skill & Aptitude-II	1	0	0	1	0.5
C. MANDATORY ACTIVITIES / COURSES								
12	MC	MC 501	Constitution of India	3	0	0	3	3Units
TOTAL CREDIT WITHOUT MOOCS COURSES								21.5
D. MOOCS COURSES**								
1 3	MOOCS COURSES	HM501	MOOCS COURSE-III	3	1	0	4	4
TOTAL CREDIT WITH MOOCS COURSES								25.5

Collective Data from 3rd to 6th Semester (Summer/Winter Training during Semester Break & Internship should be done after 5th Semester or 6th Semester). All related certificates to be collected by the training/ internship coordinator(s).

** MOOCS COURSES for HONOURS/MINOR Degree are Program specific and to be taken from MOOCS BASKET

3rd Year 2nd Semester: 6th Semester

Sl. No.	Category	Course Code	Course Title	Hours per week				Credits
				L	T	P	Total	
A. THEORY								
1	Humanities and Social Sciences including Management courses	HSMC 604	Economics for Engineers	2	0	0	2	2
2	Program Core Course	CS601	Computer Networks	3	0	0	3	3
3	Program Core Course	CS602	Software Engineering	3	0	0	3	3
4	Professional Elective courses	CS-T-601	Microprocessor and Microcontroller	3	0	0	3	3
		CS-S-601	Advanced Operating Systems					
		CS-D-601	Machine Learning					
		CS-A-601	Web and Internet Technology					
5	Professional Elective courses	CS-T-602	Parallel and Distributed Algorithms	3	0	0	3	3
		CS-S-602	Embedded Systems					
		CS-D-602	Soft Computing					
		CS-A-602	Human Computer Interaction					
6	Open Elective courses	CS-601A	Introduction to Internet of Things	3	0	0	3	3
		CS-601B	Bio-informatics					

		CS- 601C	Robotics						
B. PRACTICAL									
7	Program Course	Core	CS691	Computer Networks Lab	0	0	3	3	1.5
8	Program Course	Core	CS692	Software Engineering Lab	0	0	3	3	1.5
9	Professional Elective courses		CS-T-691	Microprocessor and Microcontroller Lab	0	0	3	3	1.5
			CS-S-691	Advanced Operating Systems Lab					
			CS-D-691	Machine Learning Lab					
			CS-A-691	Web and Internet Technology Lab					
10	PROJECT		PR 691	Minor Project II	0	0	3	2	1
11	PROJECT		PR 692	Skill Development VI: Soft Skill & Aptitude-III	1	0	0	1	0.5
C. MANDATORY ACTIVITIES / COURSES									
12	MC		MC 601	Intellectual Property Right	3	0	0	3	3Units
TOTAL CREDIT WITHOUT MOOCS COURSES									23.0
D.MOOCS COURSES**									
13	MOOCS COURSES		HM601	MOOCS COURSE-IV	3	1	0	4	4
TOTAL CREDIT WITH MOOCS COURSES									27

Collective Data from 3rd to 6th Semester (Summer/Winter Training during Semester Break & Internship should be done after 5th Semester or 6th Semester). All related certificates to be collected by the training/ internship coordinator(s).

**** MOOCS COURSES for HONOURS/MINOR Degree are Program specific and to be taken from MOOCS BASKET**

4th Year 1st Semester: 7th Semester

Sl No	Course Code	Paper Code	Theory	Contact Hours /Week				Credit Points
				L	T	P	Total	
A. THEORY								
1	Professional Elective courses	CS-T-701	Information Theory and Coding	3	0	0	3	3
		CS-S-701	Ad-Hoc and Sensor Networks					
		CS-D-701	Data Mining and Data Warehouse					
		CS-A-701	Cloud Computing					
2	Professional Elective courses	CS-T-702	Quantum Computing	3	0	0	3	3
		CS-S-702	Mobile Computing					
		CS-D-702	Natural Language Processing					
		CS-A-702	Cryptography and Network Security					
3	Open Elective courses	CS-701A	High Performance Computing	3	0	0	3	3
		CS-701B	Image Processing					
		CS-701C	Optimization Techniques					
4	Open Elective courses	CS-702A	Cyber Law and Ethics	3	0	0	3	3
		CS-702B	Soft Skills and Interpersonal Communication					
		CS-702C	Foreign Language					
B. PRACTICAL								
5	Professional Elective courses	CS-T-791	Information Theory and Coding Lab	0	0	0	3	1.5
		CS-S-791	Ad-Hoc and Sensor Networks Lab					
		CS-D-791	Data Mining and Data Warehousing Lab					

		CS-A-791	Cloud Computing Lab					
6	Open Elective courses	CS-791A	High Performance Computing Lab	0	0	3	3	1.5
		CS-791B	Image Processing Lab					
		CS-791C	Optimization Techniques Lab					
7	PROJECT	PR 791	Major Project-I	0	0	0	4	2
8	PROJECT	PR 792*	Industrial Training / Internship	0	0	0	0	1
9	PROJECT	PR 793	Skill Development VII: Seminar & Group Discussion	1	0	0	1	0.5
C. MANDATORY ACTIVITIES / COURSES								
10	MC	MC 781	Entrepreneurship & Innovation Skill	3	0	0	3	3 Units
TOTAL CREDIT WITHOUT MOOCS COURSES								18.5
D.MOOCS COURSES**								
11	MOOCS COURSES	HM701	MOOCS COURSE-V	3	1	0	4	4
TOTAL CREDIT WITH MOOCS COURSES								22.5

Collective Data from 3rd to 6th Semester (Summer/Winter Training during Semester Break & Internship should be done after 5th Semester or 6th Semester). All related certificates to be collected by the training/ internship coordinator(s).

** MOOCS COURSES for HONOURS/MINOR Degree are Program specific and to be taken from MOOCS BASKET

4th Year 2nd Semester: 8th Semester

Sl No	Course Code	Paper Code	Theory	Contact Hours /Week				Credit Points
				L	T	P	Total	
A. THEORY								
1	Professional Elective courses	CS-T-801	Advance Graph Algorithms	3	0	0	3	3
		CS-S-801	Real Time System					
		CS-D-801	Data Analytics					
		CS-A-801	Computer Graphics					
2	Open Elective courses	CS-801A	Human Resource Development and Organizational Behavior	3	0	0	3	3
		CS-801B	VLSI					
		CS-801C	Simulation and Modeling					
3	Open Elective courses	CS-802A	Values and Ethics in Profession	3	0	0	3	3
		CS-802B	History of Science					
		CS-802C	Economic Policies in India					
B. PRACTICAL								
4	PROJECT	PR 891	Major Project-II	0	0	0	12	6
5	PROJECT	PR 892	Grand Viva	0	0	0	0	1
C. MANDATORY ACTIVITIES / COURSES								
6	MC	MC 801	Essence of Indian Knowledge Tradition	0	0	3	3	3 Units
TOTAL CREDIT								16
