DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

August 24, 2021.

Minutes of the Board of Studies online meeting held on July 27, 2021 at 10:30 AM

Members present at the meeting

1. Dr.Shaik Nazeer,
   Prof. & Head, Dept. of Computer Science and Engg.,
   Bapatla Engineering College (Autonomous),   Chairman

2. Dr. M Mala,
   Professor,
   Department of CSE
   National Institute of Technology,
   Tiruchunapalli -620015   Member

3. Dr. Rashmi Ranjan Rout,
   Associate Professor,
   Department of CSE,
   NITW, Warangal.   Member

4. Dr. E. Srinivasa Reddy,
   Professor, Dept. of CSE,
   Dr. YSR ANU College of Engg. &Tech.,
   Acharya Nagarjuna University,
   Nagarjunanagar,
   Guntur-522510.   Member

5. Mr. Ravi Gummadi,
   Advisory Software Engineer at IBM,
   Bangalore Urban district,
   Karnataka, India.   Member

6. Mr. Vasudeva Thumati,
   Advanced Technology Manager,
   GE Appliances,
   Haier company, Hyderabad   Member

The following items were on the agenda for discussion:

1. Discuss and finalize the B.Tech (CSE) II, III & IV Year scheme & syllabus for R20 regulation.
2. Any other matter with the permission of the chair

The Meeting was organized in online mode due to pandemic. The Chairman, BOS Introduced the members of the BoS and welcomed the members for the meeting and presented the details of the agenda to the members.

The following resolutions were passed in the BOS meeting:

1. In the present meeting of BoS, the schemes of II Year B.Tech (CSE) is finalized.
2. However for the sake of completeness the schemes of III & IV Year of B.Tech (CSE) are tentatively finalized, which will be taken up for finalization in the subsequent meetings of BoS.
3. The syllabi for the subjects of II Year B.Tech (CSE) will be mailed soon for your suggestions.
4. The chairman is authorized to finalize the model paper, paper setters and examiners for each subject in B.Tech (CSE) for the A.Y. 2021-22
5. The Chairman is authorized to convene the departmental committee meeting to do any minor changes in the scheme or syllabus with the approval of the committee.

The Chairman, BOS thanked the members before concluding the meeting.

Dr. SHAIK NAZEER 24/08/21
Chairman, Board of Studies &
Head, Dept. of Computer Science and Engg.,
Bapatla Engineering College, Bapatla.

Copy to:
The Principal, Bapatla Engineering College,
PA to The President, Bapatla Education Society,
Members, Board of Studies.

Bapatla Engineering College

(Autonomous)

Mahatmaji Puram, BAPATLA-522102, Guntur (Dt.), A.P., INDIA

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Faculty members attended for Board of Studies (BoS) online meeting held on July 27, 2021 at 10.30am.

S.no	Name of the Faculty	Designation	Sno		
1	Dr. N. Sudhakar	Professor	16	Mr. V. Naveen Kunar	Asst. Professor
2	Prof. V. Chakaradhar	Professor	17	Mr. R. Pavan Karthik	Asst. Professor
3	Dr. P.S. Vachaspati	Professor	18	Mr. S. Naga Chandra Sekhar	Asst. Professor
4	Dr. P. Pardha Saradhi	Professor	19	Mr. R. Veera Mohan Rao	Asst. Professor
5	Dr. S. Rama Krishna	Assoc. Professor	20	Mr. J. Kumara Raja	Asst. Professor
6	Dr. T. S. Murthy	Assoc. Professor	21	Smt. M. Karuna	Asst. Professor
7	Dr. K. Kishore Babu	Assoc. Professor	22	Mr. A. Ravi Kishore	Asst. Professor
8	Dr. R. Daniel	Assoc. Professor	23	Mr. P. Nanda Kishore	Asst. Professor
9	Mr. M. Rajesh Babu	Asst. Professor	24	Mr. J. Madhan Kumar	Asst. Professor
10	Dr. C. R. Raman	Asst. Professor	25	Mr. B. Prasanth Babu	Asst. Professor
11	Smt. CH. Mangamma	Asst. Professor	26	Mr. K. Ashok Babu	Asst. Professor
12	Mr. K.Kishan Chand	Asst. Professor	27	Smit. J. Swarupa	Asst. Professor
13	Mr. T. Nagarjuna	Asst. Professor	28	Mr. A. Gopinadh	Asst. Professor
14	Mr. K. Mani Deep	Asst. Professor	29	Mr. M.V.Pavan Kumar	Asst. Professor
15	Mr. K. Arun Babu	Asst. Professor			

Dr. SHAIK NAZEER 24/8/21
Chairman, Board of Studies &
Head, Dept. of Computer Science and Engg.,
Bapatla Engineering College, Bapatla.

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Dr. Nazeer Shaik, M.Tech., Ph.D.,
Prof. & Head

Ref.: -BEC/BOS/CSE/2021/27072021   Date: July 27, 2021.

Meeting of BoS (C S & E)

    It is my pleasure to invite you to the online meeting of Board of Studies in Computer Science and Engineering which is scheduled on 31/07/2021 at 10.30 am. The agenda is as follows

1. Discuss and finalize the B.Tech (CSE) 2nd, 3rd & 4th year scheme & syllabus for R20 regulation.
2. Any other matter with the permission of the chair

Copy to

1. Dr. C Mala, Professor, Department of CSE, NIT Tiruchunapalli
2. Dr. Rashmi Ranjan Rout, Assoc. Professor, Dept. of CSE, NIT Warangal
3. Dr. E. Srinivasa Reddy, Professor, Dept. of CSE, Dr. YSR ANU College of Engg. &Tech., Acharya Nagarjuna University, Guntur.
4. Mr. Ravi Gummadi, Advisory Software Engineer at IBM, Bengaluru.
5. Mr. Vasudeva Thumati, Advanced Technology Manager GE Appliances, Haier Company, Hyderabad
6. All the faculty members of the Dept. of CSE.

Dr. SHAIK NAZEER 27/7/2021
Professor & Head,
Dept. of CSE,
Bapatla Engineering College

Attachment:
1. R-20 B.Tech-Computer Science and Engineering Scheme document

BAPATLA ENGINEERING COLLEGE:: BAPATLA
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SCHEME OF INSTRUCTION & EXAMINATION (Semester System)
For
Computer Science & Engineering
First Year B.Tech (SEMESTER – I) structure as per APSCHE
for the Academic Year 2020-21

Code No.	Category Code	Subject	Scheme of Instruction (Hours per week)				Scheme of Examination (Maximum marks)			No. of Credits
			L	T	P	Total	CIE	SEE	Total Marks	
20CS101/MA01	BS	Linear algebra and differential equations	3	0	0	3	30	70	100	3
20CS102/CY01	BS	Engineering Chemistry	3	0	0	3	30	70	100	3
20CS103/HS01	HS	Communicative English	3	0	0	3	30	70	100	3
20CSL101/MEL01	ES	Engineering Graphics	1	0	4	5	30	70	100	3
20CSL102/CYL01	BS	Chemistry Lab	0	0	3	3	30	70	100	1.5
20CSL103/HSL01	HS	English Communication skills Lab	0	0	3	3	30	70	100	1.5
20CSL104/MEL2	ES	Workshop Practice Lab	0	0	3	3	30	70	100	1.5
20CS104/MC01	MC	Environmental Studies	2	0	0	2	30	0	30	0
INDUCTION PROGRAM	First Three Weeks (Physical activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Familiarization to Dept./Branch & Innovations)									
TOTAL			**12**	**0**	**13**	**25**	**240**	**490**	**730**	**16.5**

CIE: Continuous Internal Evaluation   SEE: Semester End Examination

L: Lecture,   T: Tutorial,   P: Practical

BS: Basic Science courses   HS: Humanities and Social science   ES: Engineering Science Courses

MC: Mandatory course

    1 Hr. Lecture (L) per week - 1 credit

    1 Hr. Tutorial (T) per week - 1 credit

    1 Hr. Practical (P) per week - 0.5 credits

    2 Hours Practical (Lab)/week - 1 credit

BAPATLA ENGINEERING COLLEGE:: BAPATLA
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SCHEME OF INSTRUCTION & EXAMINATION (Semester System)
For
Computer Science & Engineering
First Year B.Tech (SEMESTER – II)
for the Academic Year 2020-21

Code No.	Category Code	Subject	Scheme of Instruction (Periods per week)				Scheme of Examination (Maximum marks)			No. of Credits
			L	T	P	Total	CIE	SEE	Total Marks	
20CS201/MA02	BS	Numerical methods& Advanced Calculus	3	0	0	3	30	70	100	3
20CS202/PH03	BS	Semiconductor Physics	3	0	0	3	30	70	100	3
20CS203/EE01	ES	Basic Electronics & Electrical Engineering	3	0	0	3	30	70	100	3
20CS204/CS01	ES	Programming for Problem Solving	3	0	0	3	30	70	100	3
20CS205	ES	Digital Logic Design	3	0	0	3	30	70	100	3
20CS206	ES	Discrete Mathematics	3	0	0	3	30	70	100	3
20CSL201/ PHL02	BS	Semiconductor Physics Lab	0	0	3	3	30	70	100	1.5
20CSL202/ EEL01	ES	Basic Electronics & Electrical Engineering Lab	0	0	3	3	30	70	100	1.5
20CSL203/ CSL01	ES	Programming for Problem Solving Lab	0	0	3	3	30	70	100	1.5
TOTAL			**18**	**0**	12	**30**	**270**	**630**	**900**	**22.5**

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MC: Mandatory course

BAPATLA ENGINEERING COLLEGE:: BAPATLA
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SCHEME OF INSTRUCTION & EXAMINATION (Semester System)
For
Computer Science & Engineering
Second Year B.Tech (SEMESTER – III)
for the Academic Year 2020-21

Code No.	Category Code	Subject	Scheme of Instruction (Periods per week)				Scheme of Examination (Maximum marks)			No. of Credits
			L	T	P	Total	CIE	SEE	Total Marks	
20CS301/MA03	BS	Probability & Statistics	3	0	0	3	30	70	100	3
20CS302	PC	Data Structures	3	0	0	3	30	70	100	3
20CS303	PC	Object Oriented Programming	3	0	0	3	30	70	100	3
20CS304	PC	Operating System	3	0	0	3	30	70	100	3
20CS305	PC	Computer Organization	3	0	0	3	30	70	100	3
20CSL301/ SO02	SO	Linux Essentials	2	0	3	5	30	70	100	3.5
20CSL302	PC	Data Structures Lab	0	0	3	3	30	70	100	1.5
20CSL303	PC	Object Oriented Programming Lab	0	0	3	3	30	70	100	1.5
20CS306/ MC03	MC	Professional Ethics & Human Values	2	0	0	2	30	0	30	0
NCC/NSS			0	0	3	3				0
TOTAL			**19**	**0**	**9**	**28**	**270**	560	**830**	**21.5**

CIE: Continuous Internal Evaluation   SEE: Semester End Examination

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BS: Basic Science courses   HS: Humanities and Social science   ES: Engineering Science Courses

MC: Mandatory course

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SCHEME OF INSTRUCTION & EXAMINATION (Semester System)
For
Computer Science & Engineering
Second Year B.Tech (SEMESTER – IV)
for the Academic Year 2020-21

Code No.	Category Code	Subject	Scheme of Instruction (Periods per week)				Scheme of Examination (Maximum marks)			No. of Credits
			L	T	P	Total	CIE	SEE	Total Marks	
20CS401	ES	Microprocessor & Microcontrollers	3	0	0	3	30	70	100	3
20CS402	PC	Web Technologies	3	0	0	3	30	70	100	3
20CS403	PC	Database Management System	3	0	0	3	30	70	100	3
20CS404	PC	Design and Analysis of Algorithms	3	0	0	3	30	70	100	3
20CS405 /HS02	HS	Technical English	3	0	0	3	30	70	100	3
20CSL401/ SO03	SO	Python	2	0	3	5	30	70	100	3.5
20CSL402	PC	Web Technologies Lab	0	0	3	3	30	70	100	1.5
20CSL403	PC	RDBMS Lab	0	0	3	3	30	70	100	1.5
TOTAL			**17**	**0**	**9**	**26**	**240**	**560**	**800**	**21.5**
Honors/Minor Course			**3**	**1**	**0**	**4**	**30**	**70**	**100**	**4**
Grand Total			**20**	**1**	**9**	**30**	**270**	**630**	**900**	**25.5**

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MC: Mandatory course

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SCHEME OF INSTRUCTION & EXAMINATION (Semester System)
For
Computer Science & Engineering
Third Year B.Tech (SEMESTER – V)
for the Academic Year 2020-21

Code No.	Category Code	Subject	Scheme of Instruction (Periods per week)				Scheme of Examination (Maximum marks)			No. of Credits
			L	T	P	Total	CIE	SEE	Total Marks	
	PC	Automata Theory & Formal Languages	3	0	0	3	30	70	100	3
	PC	Computer Networks	3	0	0	3	30	70	100	3
	PC	Software Engineering	3	0	0	3	30	70	100	3
	JO	Job Oriented Elective - 1	3	0	0	3	30	70	100	3
	PE	Professional Elective - 1	3	0	0	3	30	70	100	3
	MC	Essence of Indian Traditional Knowledge	2	0	0	2	30	0	30	0
	PC	Software Engineering Lab	0	0	3	3	30	70	100	1.5
	JO	Job Oriented Elective Lab -1	0	0	3	3	30	70	100	1.5
	SO	Advanced Skill Oriented - 1	1	0	2	3	30	70	100	2
	INT	Summer Internship	0	0	0	0	0	0	0	1.5
TOTAL			18	0	8	26	270	560	830	21.5
Honors/Minor Course			3	1	0	4	30	70	100	4
Grand Total			21	1	8	30	300	630	930	25.5

CIE: Continuous Internal Evaluation   SEE: Semester End Examination
L: Lecture,   T: Tutorial,   P: Practical
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MC: Mandatory course

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SCHEME OF INSTRUCTION & EXAMINATION (Semester System)
For
Computer Science & Engineering
Third Year B.Tech (SEMESTER – VI)
for the Academic Year 2020-21

Code No.	Category Code	Subject	Scheme of Instruction (Periods per week)				Scheme of Examination (Maximum marks)			No. of Credits
			L	T	P	Total	CIE	SEE	Total Marks	
	PC	Compiler Design	3	0	0	3	30	70	100	3
	PC	Machine Learning	3	0	0	3	30	70	100	3
	PC	Cryptography & Network Security	3	0	0	3	30	70	100	3
	PE	Professional Elective -2	3	0	0	3	30	70	100	3
	JO	Job Oriented Elective - 2	3	0	0	3	30	70	100	3
	MC	Constitution of India	2	0	0	2	30	0	30	0
	PC	Machine Learning Lab	0	0	3	3	30	70	100	1.5
	PC	Cryptography & Network Security Lab	0	0	3	3	30	70	100	1.5
	JO	Job Oriented Elective Lab - 2	0	0	3	3	30	70	100	1.5
	SO	Soft Skills	1	0	2	3	30	70	100	2
TOTAL			**18**	**0**	11	**29**	**300**	**630**	**930**	**21.5**
Honors/Minor Course			**3**	**1**	0	**4**	**30**	**70**	**100**	**4**
Grand Total			**20**	**1**	9	**30**	**270**	**630**	**900**	**25.5**

CIE: Continuous Internal Evaluation   SEE: Semester End Examination
L: Lecture,   T: Tutorial,   P: Practical
BS: Basic Science courses   HS: Humanities and Social science   ES: Engineering Science Courses
MC: Mandatory course

SCHEME OF INSTRUCTION & EXAMINATION (Semester System)
For
Computer Science & Engineering
Fourth Year B.Tech (SEMESTER – VII)
for the Academic Year 2020-21

Code No.	Category Code	Subject	Scheme of Instruction (Periods per week)				Scheme of Examination (Maximum marks)			No. of Credits
			L	T	P	Total	CIE	SEE	Total Marks	
	PE	Professional Elective - 3	3	0	0	3	30	70	100	3
	PE	Professional Elective - 4	3	0	0	3	30	70	100	3
	JO	Job Oriented Elective - 3	3	0	0	3	30	70	100	3
	JO	Job Oriented Elective - 4	3	0	0	3	30	70	100	3
	HS	Industrial Management & Entrepreneurship Development	3	0	0	3	30	70	100	3
	JO	Job Oriented Elective – 3 Lab	0	0	3	3	30	70	100	1.5
	JO	Job Oriented Elective – 4 Lab	0	0	3	3	30	70	100	1.5
	SO	Advanced Skill Oriented - 2	1	0	2	3	30	70	100	2
	INT	Industrial/ Research Internship	0	0	0	0	0	0	0	3
TOTAL			16	0	8	24	240	560	800	23
Honors/Minor Course			3	1	0	4	30	70	100	4
Grand Total			20	1	9	30	270	630	900	27

CIE: Continuous Internal Evaluation   SEE: Semester End Examination

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BS: Basic Science courses   HS: Humanities and Social science   ES: Engineering Science Courses

MC: Mandatory course

BAPATLA ENGINEERING COLLEGE:: BAPATLA
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SCHEME OF INSTRUCTION & EXAMINATION (Semester System)
For
Computer Science & Engineering
Fourth Year B.Tech (SEMESTER – VIII)
for the Academic Year 2020-21

Code No.	Category Code	Subject	Scheme of Instruction (Periods per week)				Scheme of Examination (Maximum marks)			No. of Credits
			L	T	P	Total	CIE	SEE	Total Marks	
	PROJ	Project Work	0	0	0	0	50	100	150	12
Honors/Minor Courses (MOOCs - 1)			**0**	**0**	0	**0**	**0**	**0**	**0**	**2**
Honors/Minor Courses (MOOCs - 2)			**0**	**0**	0	**0**	**0**	**0**	**0**	**2**
Grand Total			**0**	**0**	0	**0**	**50**	**100**	**150**	**16**

CIE: Continuous Internal Evaluation   SEE: Semester End Examination
L: Lecture,   T: Tutorial,   P: Practical
BS: Basic Science courses   HS: Humanities and Social science   ES: Engineering Science Courses
MC: Mandatory course

List of Professional Electives:-
1. Wireless Networks
2. Data Warehousing & Data Mining.
3. Distributed Systems.
4. Artificial Intelligence
5. Digital Image Processing.
6. Block chain Technologies.
7. Protocols for Secure Electronic Commerce.
8. Artificial Neural Networks and Deep Learning.
9. Natural Language Processing.

List of Job Oriented Electives:-
1. Enterprise Programming.
2. Middleware Technologies.
3. Mobile Application Development.
4. Cloud Programming.
5. Statistics with R.
6. Cyber Security.
7. Internet of Things.
8. Big Data Analytics.
9. Software Testing Methodologies.

List of Advanced Skill Oriented Elective:-
1. Data Visualization
2. Full Stack Development
3. DevOps
4. Robotic Process Automation

List of Subjects offered under Honors in CSE

Note: - Students have to acquire 20 credits for the award of Honors in CSE.

i.   16 credits (04 courses@ 4 credits each) shall be earned through the following list of courses.

ii. 4 credits (02 courses@ 2 credits each) must be acquired through two MOOCs from the following list of courses with a minimum duration of 8/12weeks.

iii. Before choosing those courses, students must complete prerequisites

1. Advanced Data Structures.
2. Advanced Computer Architecture.
3. Graph Theory
4. Numerical Optimization.
5. Advanced Database Systems
6. Real Time Operating Systems.
7. Parallel Algorithms.
8. Embedded Systems
9. Design Patterns.
10. Storage Area Networks
11. Computational Complexity.
12. Competitive Programming.
13. Web Semantics.
14. Spatial Informatics.
15. Perception & Computer Vision.
16. Virtual Reality