

Vadlamudi - 522 213, Guntur Dt. AP, India

### Minutes of Meeting of Board of Studies (BOS)

#### Date: 20.05.2013

Board of Studies Meeting (BOS) of department of Information Technology of Vignan's Foundation for Science Technology and Research University is conducted on 20<sup>th</sup> May, 2013 at board Room, H-Block, Vignan's Foundation for Science Technology and Research University, Vadlamudi.

### The following members attended the meeting

- 1. Dr. C. Raghavendra Rao, Professor, Central University, Hyderabad, Member
- 2. Dr. D V L N Somajajulu, Professor & HOD, CSE, NIT, Warangal, Member
- 3. Dr. B. B. Prahlada Rao, Group Coordinator, C-DAC, Bangalore, Member
- 4. Mr. CH. Sri Nagesh, Campus Connect Coordinator, Infosys, Hyderabad, Member
- 5. Mr. A. Raghu Nath, HOD, IT, VFSTR, Member
- 6. Mr.B.Premamayudu, Assoc. Prof. IT, VFSTR, Member
- 7. Mr. K. Praveen Kumar, Asst. Prof. IT, VFSTR, Member

### Agenda of the BOS Meeting:

- 1. To finalize R13 B.Tech. Information Technology programme Curriculum.
- 2. Any point with the permission of Chair.

#### Following are the points discussed and resolutions made during this meeting:

- 1. Propose and approve course structure for all 4 years of B.Tech. Programme in Information Technology (Appendix I)
- Propose and approve detailed syllabus for the 4 year of B.Tech. Programme in Information Technology with effect from the academic year 2013-14. The proposed structure and syllabus are applicable for 2013 admitted batch onwards.
- 3. Stakeholder's feedback is collected, analyzed and given utmost priority while designing the curriculum and their suggestions are implemented
- 4. The curriculum follows choice-based credit system
- 5. The board felt that awareness and exposure to domain specific open-source tools in java to the students will aid in skill enhancement. So, the labs should be integrated good account of experiments to make the students to aware how to use these open-source tools in java. Skill set of the students should utilize campus wide communication/computational facilities effectively and orientation for the same should be integrated in the lab



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- 6. Major restructuring has taken place in the curriculum which is industrial ready courses (like Data Mining, Big data, Computer Vision, Open Systems for Web Technologies) and one full semester internship project in IT industry either in 4th year I semester or 4<sup>th</sup> year II semester
- 7. The curriculum is encompassing the courses that enable employability or entrepreneurship or skill development (Appendix II)
- 8. In the B.Tech. Information Technology revised regulation R13, the substantial changes are made in the content of all courses and hence the courses are considered as new courses (Appendix III)

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#### Signature of the members present

- Dr. C. Raghavendra Rao C. Loghavenduras
  Dr. DVLN Somajajulu Dulu BB Prachadeper Norgesh
- 3. Dr. B. B. Prahlada Rao
- 4. Mr. CH. Sri Nagesh
- 5. Mr. A. Raghu Nath
- 6. Mr. B. Premamayudu
- 7. Mr. K. Praveen Kumar



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## Appendix I B.Tech. Information Technology Programme Structure

#### I Semester

S.No.	Course Name	L	Т	P	То	C
1	Engineering Mathematics I	4	-	-	4	4
2	Engineering Physics	4	-	-	4	4
3	Engineering Mechanics	4	-	-	4	4
4	Technical English Communication	3	2	-	5	5
5	Problem Solving and Computer Programming	5	-	-	5	5
6	Network Security	2	-	-	2	-
7	Engineering Physics Lab	-	-	3	3	2
8	Computer Programming Lab		-	3	3	2
9	Workshop Practice	-	-	3	3	2
	Total	22	2	9	33	28

### **II** Semester

S.No.	Course Name	L	T	P	То	C
1	Engineering Mathematics-II	4	-	-	4	4
2	Environmental Studies	3	-	-	3	3
3	Fundamentals of Electrical Engineering	4	-	-	4	4
4	Engineering Chemistry	4	-	-	4	4
5	Data Structures	4	-	-	4	4
6	Professional Ethics, Values and Human Rights	2	-	-	2	-
7	Data Structures Lab	-	-	3	3	2
8	Engineering Graphics	1	-	3	4	3
9	Fundamentals of Electrical Engineering Lab	-	-	3	3	2
	Total	22	0	9	31	26

#### **III Semester**

S.No.	Course Name	L	T	P	То	C
1	Discrete Mathematical Structures	4	-	-	4	4
2	Digital Logic Design	4	-	-	4	4
3	Advanced Data Structures	4	-	-	4	4
4	Object Oriented Programming through JAVA	4	-	-	4	4
5	Software Engineering	4	-	-	4	4
6	Minor-I	4	-	-	4	4
7	Seminar	-	-	1	1	1
8	Advanced Data Structures Lab	-	x-	3	3	2
9	Object Oriented Programming Through JAVA Lab	-	-	3	3	2
10	Soft Skills Lab	-	-	3	3	2
	Total	24	-	10	34	31



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## **B.Tech. Information Technology Programme Structure**

### **IV Semester**

S.No.	Course Name	L	T	P	To	C
1	Probability & Statistics	4	-	-	4	4
2	Computer Organization	4	-	-	4	4
3	Database Systems	4	-	-	4	4
4	Formal Languages and Automata Theory	4	-	-	4	4
5	Design and Analysis of Algorithms	4	-	-	4	4
6	Minor-II	4	-	-	4	4
7	Seminar	-	-	1	1	1
8	Database Systems Lab	-	-	3	3	2
9	Design and Analysis of Algorithms Lab	-	-	3	3	2
10	Professional Communication Lab	-	-	3	3	2
	Total	24	-	10	34	31

### **V** Semester

S.No.	Course Name	L	T	P	То	C
1	Web Technologies	4	-	-	4	4
2	Computer Networks	4	-	-	4	4
3	Operating Systems	4	-	-	4	4
4	Compiler Design	4	-	-	4	4
5	Department Elective – I	4	-	-	4	4
6	Minor-III	4	-	-	4	4
7	Seminar	-	-	1	1	1
8	Web Technologies Lab	-	-	3	3	2
9	Computer Networks Lab	-	-	3	3	2
10	Operating Systems Lab	-	-	3	3	2
	Total	24	-	10	34	3

## VI Semester

S.No.	Course Name	L	T	P	To	C
1	Object Oriented Analysis and Design	4	-	-	4	4
2	Middleware Technologies	4	-	-	4	4
3	Microprocessors and Microcontrollers	4	-	-	4	4
4	Software Testing Methodologies	4	-	-	4	4
5	Department Elective-II	4	-	-	4	4
6	Minor-IV	4	-	-	4	4
7	Seminar	-	-	1	1	1
8	Object Oriented Analysis and Design Lab	-	-	3	3	2
9	Middleware Technologies Lab	-	-	3	3	2
10	Mini Project	-	-	3	3	2
	Total	24	-	10	34	31



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## **B.Tech. Information Technology Programme Structure**

### VII Semester

S.No.	Course Name	L	Т	P	То	C
1	Data Warehousing and Data Mining	4	-	-	4	4
2	Cryptography and Network Security	4	-	-	4	4
3	Big Data Analytics	4	-	-	4	4
4	Department Elective-III	4	-	-	4	4
5	Department Elective-IV	4	-	-	4	4
6	Managerial Economics	4	-	-	4	4
7	Data Warehousing and Data Mining Lab	-	-	3	3	2
8	Cryptography and Network Security Lab	-	-	3	3	2
9	Free Open Source Software (FOSS) Lab	-	-	3	3	2
	Total	24	0	9	33	30

### VIII Semester

S.No.	Course Name	L	Τ	P	To	C
1	Minor-V	4	-		4	4
2	Department Elective-V	4	-	-	4	4
3	Department Elective-VI	4	-	-	4	4
4	Project Work	-	-	10	10	10
	Total	12	0	10	22	22

## **DEPARTMENT ELECTIVES**

S.No.	Course Name
	Elective I
1	Digital Image Processing
2	Artificial Intelligence
3	Principles of Programming Languages
4	Advanced Computer Architecture
	Elective II
5	Soft Computing
6	Cloud Computing
7	Mobile Application Development
8	Script Programming
	Elective III
9	Software Project Management
10	Human Computer Interaction
11	Multimedia Systems

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12	Distributed Computing						
Elective IV							
13	Simulation and Modeling						
14	Open Systems for Web Technologies						
15	Embedded Systems						
16	Robotics						
	Elective V						
17	Network Programming						
18	Bio Informatics						
19	Design Patterns						
20	J2EE						
	Elective VI						
21	Enterprise Resource Planning						
22	Mobile Commerce						
23	Ethical Practices in IT						
24	Business Intelligence						

## MINOR SPECIALIZATION (INFORMATION TECHNOLOGY)

S.No.	Course Name
1	Object Oriented Programming through Java
2	Internet and Web Technologies
3	Operating Systems
4	Unix and Shell Programming
5	Data Base Systems
6	Multimedia Systems
7	Software Engineering
8	Data warehousing & datamining
9	Software Testing Methodologies
10	Object Oriented Analysis & Design

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## **Appendix II**

List of courses that enable employability or entrepreneurship or skill development in the R-13 B.Tech. – Information Technology

CYCIU DI	ient m the IX-13	D. Iech. – Information Technology	1
S.No.	Year	Course Name	Course Nature
1	I	Engineering Mathematics I	Skill Development
2	I	Engineering Physics	Skill Development
3	I	Engineering Mechanics	Skill Development
4	I	Technical English Communication	Skill Development
5	I	Problem Solving and Computer	10407 (BAD) 8440.
		Programming	Skill Development
6	I	Network Security	Skill Development
7	I	Engineering Physics Lab	
8	Ι	Computer Programming Lab	Skill Development
9	I	Workshop Practice	Skill Development
10	Ι	Engineering Mathematics-II	Skill Development
11	I	Environmental Studies	Skill Development
12	I	Fundamentals of Electrical Engineering	Skill Development
13	I	Engineering Chemistry	Skill Development
14	I	Data Structures	Skill Development
15	I	Professional Ethics, Values and Human	Skill Development
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16	I	Data Structures Lab	Skill Development
17	I	Engineering Graphics	Skill Development
18	I	Fundamentals of Electrical Engineering	Skill Development
		Lab	-
19	II	Discrete Mathematical Structures	Employability
20	П	Digital Logic Design	Skill Development
21	II	Advanced Data Structures	Employability
22	п	Object Oriented Programming through	
		JAVA	Employability
23	П	Software Engineering	Skill Development
24	II	Minor-I	Skill Development
25	II	Seminar	Employability
26	П	Advanced Data Structures Lab	Skill Development
27	Π	Object Oriented Programming Through	i
		JAVA Lab	Employability
28	II	Soft Skills Lab	Skill Development
29	II	Probability & Statistics	Skill Development
30	II	Computer Organization	Skill Development
31	II	Database Systems	Employability
32	II	Formal Languages and Automata Theory	Employability
33	II	Design and Analysis of Algorithms	Employability
34		Minor-II	Skill Development
35	II	Seminar	Employability



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36	<u> </u>	Database Systems Lab	Employability
37	<u> </u>	Design and Analysis of Algorithms Lab Skill Develo	
38	<u> </u>	Professional Communication Lab	Skill Development
39	<u> </u>	Web Technologies	Employability
40	<u> </u>	Computer Networks	Skill Development
41	<u> </u>	Operating Systems	Skill Development
42	<u> </u>	Compiler Design	Employability
<mark>_43</mark> _		Minor-III	Skill Development
<mark>44</mark>	<u> </u>	Seminar	Skill Development
45	III	Web Technologies Lab	Employability
<mark>46</mark>	III	Computer Networks Lab	Skill Development
47	III	Operating Systems Lab	Skill Development
48	Ш	Object Oriented Analysis and Design	Employability
49	III	Middleware Technologies	Employability
50	II	Microprocessors and Microcontrollers	Skill Development
51	III	Software Testing Methodologies	Skill Development
52	III	Minor-IV	Skill Development
53	III	Seminar	Employability
54	III	Object Oriented Analysis and Design	
		Lab	Employability
55	II	Middleware Technologies Lab	Employability
56	II	Mini Project	Employability
57	ĪV	Data Warehousing and Data Mining	Employability
58	IV	Cryptography and Network Security	Skill Development
59	IV	Big Data Analytics	Employability
60	IV IV	Managerial Economics	Skill Development
61	IV	Data Warehousing and Data Mining Lab	Employability
<u>62</u>	IV IV	Cryptography and Network Security Lab	Skill Development
63	IV	Free Open Source Software (FOSS) Lab	Employability
64	IV	Minor-V	Employability
65	IV	Project Work	Skill Development
			Skill Development
<mark>66</mark>	Department Elective	Digital Image Processing	Employability
67			Employability
67	Department	Artificial Intelligence	Employability
	Elective		Employability
68	Department	Principles of Programming	
	Elective	Languages	Employability
<mark>69</mark>	Department	Advanced Computer Architecture	
	Elective		Employability
70	Department	Soft Computing	
	Elective		Employability
71	Department	Cloud Computing	
	Elective		Employability
72	Department	Mobile Application Development	
	Elective		Employability
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72	Department	Contact Descent in a	
73	Department Elective	Script Programming	Employability
74	Department	Coffman Draigat Management	Employaomity
/4	Elective	Software Project Management	Skill Development
75	Department	Human Computer Interaction	Okin Development
	Elective	Human Computer Interaction	Skill Development
76	Department	Multimedia Systems	Danie Development
	Elective	Watchine and Systems	Skill Development
77	Department	Distributed Computing	
	Elective	Distributed Computing	Skill Development
78	Department	Simulation and Modeling	
	Elective	Simulation and thoughing	Skill Development
79	Department	Open Systems for Web	Employability
	Elective	Technologies	
80	Department	Embedded Systems	
00	Elective	Embedded Systems	Skill Development
81	Department	Robotics	Employability
	Elective	Robolies	Employdonity
82	Department	Network Programming	Employability
	Elective	Techonik Programming	
83	Department	Bio Informatics	
	Elective		Skill Development
84	Department	Design Patterns	
	Elective		Skill Development
85	Department	J2EE	Employability
	Elective		
86	Department	Enterprise Resource Planning	Employability
	Elective		
87	Department	Mobile Commerce	Employability
	Elective		
88	Department	Ethical Practices in IT	
	Elective		Skill Development
89	Department	Business Intelligence	
	Elective		Skill Development

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	А	ppendix III				
	List of new	courses in the R-13				
B.Tech. – Information Technology Curriculum						
S.No.	Semester (Year)	Course Name				
1	Semester I (First Year)	Engineering Mathematics I				
2	Semester I (First Year)	Engineering Physics				
3	Semester I (First Year)	Engineering Mechanics				
4	Semester I (First Year)	Technical English Communication				
5	Semester I (First Year)	Problem Solving and Computer Programming				
6	Semester I (First Year)	Network Security				
7	Semester I (First Year)	Engineering Physics Lab				
8	Semester I (First Year)	Computer Programming Lab				
9	Semester I (First Year)	Workshop Practice				
10	Semester II (First Year)	Engineering Mathematics-II				
11	Semester II (First Year)	Environmental Studies				
12	Semester II (First Year)	Fundamentals of Electrical Engineering				
13	Semester II (First Year)	Engineering Chemistry				
14	Semester II (First Year)	Data Structures				
15	Semester II (First Year)	Professional Ethics, Values and Human Rights				
16	Semester II (First Year)	Data Structures Lab				
17	Semester II (First Year)	Engineering Graphics				
18	Semester II (First Year)	Fundamentals of Electrical Engineering Lab				
19	Semester I (Second Year)	Discrete Mathematical Structures				
20	Semester I (Second Year)	Digital Logic Design				
21	Semester I (Second Year)	Advanced Data Structures				
22	Semester I (Second Year)	Object Oriented Programming through JAVA				
23	Semester I (Second Year)	Software Engineering				
24	Semester I (Second Year)	Minor-I				
25	Semester I (Second Year)	Seminar				
26	Semester I (Second Year)	Advanced Data Structures Lab				
27	Semester I (Second Year)	Object Oriented Programming Through JAVA Lab				
28	Semester I (Second Year)	Soft Skills Lab				
29	Semester II (Second Year)	Probability & Statistics				
30	Semester II (Second Year)	Computer Organization				
31	Semester II (Second Year)	Database Systems				
32	Semester II (Second Year)	Formal Languages and Automata Theory				
33	Semester II (Second Year)	Design and Analysis of Algorithms				
34	Semester II (Second Year)	Minor-II				
35	Semester II (Second Year)	Seminar				
36	Semester II (Second Year)	Database Systems Lab				
37	Semester II (Second Year)	Design and Analysis of Algorithms Lab				
38	Semester II (Second Year)	Professional Communication Lab				
39	Semester I (Third Year)	Web Technologies				
40	Semester I (Third Year)	Computer Networks				



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41	Semester I (Third Year)	Operating Systems
42	Semester I (Third Year)	Compiler Design
43	Semester I (Third Year)	Minor-III
44	Semester I (Third Year)	Seminar
45	Semester I (Third Year)	Web Technologies Lab
46	Semester I (Third Year)	Computer Networks Lab
47	Semester I (Third Year)	Operating Systems Lab
48	Semester II (Third Year)	Object Oriented Analysis and Design
49	Semester II (Third Year)	Middleware Technologies
50	Semester II (Third Year)	Microprocessors and Microcontrollers
51	Semester II (Third Year)	Software Testing Methodologies
52	Semester II (Third Year)	Minor-IV
53	Semester II (Third Year)	Seminar
54	Semester II (Third Year)	Object Oriented Analysis and Design Lab
55	Semester II (Third Year)	Middleware Technologies Lab
56	Semester II (Third Year)	Mini Project
57	Semester I (Fourth Year)	Data Warehousing and Data Mining
58	Semester I (Fourth Year)	Cryptography and Network Security
59	Semester I (Fourth Year)	Big Data Analytics
60 61	Semester I (Fourth Year)	Managerial Economics
62	Semester I (Fourth Year) Semester I (Fourth Year)	Data Warehousing and Data Mining Lab Cryptography and Network Security Lab
63	Semester I (Fourth Year)	Free Open Source Software (FOSS) Lab
64	Semester II (Fourth Year)	Minor-V
65	Semester II (Fourth Year)	Project Work
66	Department Elective	Digital Image Processing
67	Department Elective	Artificial Intelligence
68	Department Elective	Principles of Programming Languages
69	Department Elective	Advanced Computer Architecture
70	Department Elective	Soft Computing
71	Department Elective	Cloud Computing
72	Department Elective	Mobile Application Development
73	Department Elective	Script Programming
74	Department Elective	Software Project Management
75	Department Elective	Human Computer Interaction
76	Department Elective	Multimedia Systems
77	Department Elective	Distributed Computing
78	Department Elective	Simulation and Modeling
79	Department Elective	Open Systems for Web Technologies
80	Department Elective	Embedded Systems
81	Department Elective	Robotics
82	Department Elective	Network Programming
83	Department Elective	Bio Informatics
05	Department Elective	DIO Informatics

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84	Department Elective	Design Patterns
85	Department Elective	J2EE
86	Department Elective	Enterprise Resource Planning
87	Department Elective	Mobile Commerce
88	Department Elective	Ethical Practices in IT
89	Department Elective	Business Intelligence

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