

**MINUTES OF 11th MEETING
OF
BOARD OF STUDIES (BOS)

DEPARTMENT OF
COMPUTER ENGINEERING &
APPLICATIONS**



GLA
UNIVERSITY
MATHURA
Established vide U.P. Act 21 of 2010.

JULY 31st, 2017

Department of Computer Engineering & Applications

Minutes of the 11th Meeting of Board of Studies held on July 31, 2017

Members Present:

- | | | |
|----------------------------------|-------------------------|------------------------|
| 1. Prof. M.M Gore, MNNIT,ALD | 7. Prof. Dilip Kumar | 13 Mr. Nitin Tyagi |
| 2. Prof. Veena Bansal, IIT K, On | 8. Dr. Diwakar Bhardwaj | 14 Mr. Shashi Shekhar |
| 3. Dr. Atul Bansal, EC | 9. Mr. Anant Ram | 15 Mr. Narendra Mohan |
| 4. Prof. Anand Singh Jalal | 10. Dr. Manoj Kumar | 16 Mr. Saurabh Anand |
| 5. Prof. Charul Bhatnagar | 11. Dr. Manas Kumar | 17 Mr. Saurabh Singhal |
| 6. Prof. Ashish Sharma | 12. Mr. Ashish Sharma | 18 Mr. Piyush |

The following members could not attend the meeting:

- | | | |
|--------------------|----------------------|------------------------|
| 1. Mr. K.G. Sharma | 2. Mr. Rohit Agarwal | 3. Mr. Himanshu Sharma |
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The Chairman Board of Studies welcomed all the members and started proceedings of the tenth meeting of BoS in accordance with the Agenda note circulated earlier.

Agenda Item – 11.1: To confirm the minutes of the 10th BoS meeting

The minutes of the meeting of 10th BoS held on May 7th, 2016 are enclosed as Annexure A

Agenda Item – 11.2: Action Taken Report (ATR)

The ATR based on the minutes of the Tenth BoS were presented.

Agenda Item – 11.3: To consider and approve Two new specializations in B.Tech. (CSE)

- Cloud Computing and Virtualization
- Data Analytics

Along with their course structure, syllabi and teaching scheme for Batch 2016 -20 and Batch 2017-21

The courses are inducted in association with IBM. The proposed course structure, syllabi and teaching scheme are enclosed as Annexure B.

Agenda Item – 11.4: To consider and approve revised syllabi for the B.Tech (CSE) programme.

All the members of BoS thoroughly checked and appraised the the feedback received from the various stakeholders (Faculty/Employer/Student/Alumni) and the revision/modification in syllabus of existing courses of various programmes is proposed as follows.

Programme	No. of Courses under consideration for revision	Name of the Courses under consideration for revision
B.Tech	4	Computer Organization Cloud Computing Object Oriented Programming Operating System Lab

The proposed syllabi for above four existing courses are enclosed as Annexure C.

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Agenda Item – 11.5: To consider and approve changes in the course structure of BCA with following details:

Proposal	Existing Course	Changed with
Replacement	MIS and E-Commerce (BCA3002)	Introduction to Python (BCA3005) in III Sem
	Organizational Behavior (BBA 2002)	Programming in Java (BCA4004) in IV Sem
Inclusion of Electives in III/V		Software Project Management (BCA5023) Introduction to Distributed System (BCA5024) Data Mining & Warehousing (BCA6023) Management Information System (BCA6024) Introduction to Big Data (BCA6025) Introduction to Cloud Computing (BCA6041) Software Testing (BCA6042) Introduction to Internet of Things (BCA6043) Cyber Security (BCA6044)
	None	Mini Project Lab (BCA4083) 0-0-2 in IV Sem.
Change in LTP	Operating Systems (BCA2003) with 4-0-0	Operating Systems (BCA2003) with lab as 3-0-2 (Content - Unix & OS)
	Software Engineering with 4-0-0	Software Engineering with 3-0-0
	GUI Based Programming using Visual Basic 4-0-4	GUI Based Programming using Visual Basic 3-0-4
Change in Credit	C Programming Lab (BCA1181) with 0-0-3	C Programming Lab (BCA1181) with 0-0-2
Renaming	Programming Logic Using C (BCA 1001) for I/I	Programming Logic (BCA 1101) for I/I
	Fundamentals of Computer and IT (BCA 1002) for I/I	Fundamentals of Information Technology (BCA 1102) for I/I
	Object Oriented Programming using C++ for II/III	Object Oriented Programming (BCA3101), with 3-0-4
	Hardware and Office Automation Lab (BCA1182) for I/I	Information Technology Lab (BCA1282), as 0-0-2
	C Programming Lab for I/I	Programming Lab (BCA1281)
Restructuring of the content	BCA1003- Introduction to Logical Circuit and Digital Design BCA1102- Fundamentals of IT BCA2003- Operating System BCA3103- Object Oriented Programming BCA4104- GUI Based Programming BCA4102 – System Design Software Engineering BCA5001 – Core Java BCA6021 - Advanced Java BCA6101 – Computer Network and Communication	

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The proposed course structure & syllabi for above subjects are enclosed as Annexure D.

Agenda Item – 11.6: To consider and approve revised code for the subject(s) that are proposed for inclusion / swapping during 11th BoS.

Shall be incorporated with new code(s)

Agenda Item – 11.7: To consider and approve courses imparting employability/skill development/ entrepreneurship in the B.Tech (CSE), B.Tech (CSE) - CCV, B.Tech (CSE) - DA, BCA, MCA and M.Tech programmes.

The experts and members of BoS approved the same. The details enclosed in Annexure E.

Agenda Item – 11.8: To consider and approve introduction of new courses in the existing programmes.

Based on the feedback of various stakeholders (Faculty, Alumni, Corporate and Students) department present details of new courses to be introduced. After thorough discussion Board approved the same. The details enclosed in Annexure F.

Agenda Item – 11.9: To consider and approve the courses offered by Department of CEA at undergraduate level under Choice Based Credit System.

The experts and members of BoS thoroughly checked and appraised under CBCS system.

- B. Tech. Computer Science & Engineering – Annexure G.
- B.Tech. Computer Science & Engineering (Specialization in Cloud Computing & Virtualization) – Annexure G.
- B. Tech. Computer Science & Engineering (Specialization in Data Analytics) – Annexure G.

Agenda Item – 11.10: Any other item with the permission of chair

No item has been reported

The meeting ended with thanks to the Chair.



(A. S. Jalal)
Head, CEA

Copy to: Chairman, Academic Council
Director IET, GLA University, Mathura
Registrar
All the members of BoS

ANNEXURE E



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Department: Computer Engineering and Applications

List of courses having focus on employability/ entrepreneurship/ skill development offered by the Department (2017-18)

S.No.	Name of the Course	Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development
1	Engineering Mathematics I	Employability/Skill Development
2	Fundamentals of Computer & Programming	Employability
3	Basic Mechanical Engineering	Employability
4	Applied Mechanics	Employability
5	Electrical Engineering	Employability
6	Electronics Engineering	Employability
7	English Language Skills for Communication – I	Employability/Skill Development
8	English Language Lab – I	Employability/Skill Development
9	Engineering Workshop Practice Lab	Employability/Skill Development
10	Engineering Drawing	Employability/Skill Development
11	Computer Programming Lab - I	Employability
12	Electrical & Electronics Lab	Employability
13	Applied Mechanics Lab	Employability
14	Engineering Mathematics II	Employability/Skill Development
15	Problem Solving using Computers	Employability
16	English Language Skills for Communication – II	Employability/Skill Development
17	English Language Lab – II	Employability/Skill Development
18	Computer Programming Lab - II	Employability
19	Data Structures & Algorithms	Employability
20	Computer Organization	Employability
21	Database Management System	Employability
22	Engineering Mathematics III	Employability/Skill Development
23	Ethics & Values	Entrepreneurship
24	Industrial Economics	Employability
25	Data Structures & Algorithms Lab	Employability
26	Computer Organization Lab	Employability
27	Database Management System Lab	Employability
28	Soft Skills – I	Skill Development
29	English for Professional Purpose–I	Employability/Skill Development
30	English for Professional Purpose–II	Employability/Skill Development
31	Introduction to Microprocessors	Employability
32	Computer Networks	Employability
33	Object Oriented Programming	Employability
34	Discrete Mathematics	Employability/Skill Development
35	Operating Systems Lab	Employability
36	Microprocessors Lab	Employability
37	Object Oriented Programming Lab	Employability
38	Soft Skills – II	Skill Development
39	Design and Analysis of Algorithms	Employability
40	Software Engineering	Employability
41	Theory of Automata and Formal Language	Employability

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Department: Computer Engineering and Applications

List of courses having focus on employability/ entrepreneurship/ skill development offered by the Department (2017-18)

S.No.	Name of the Course	Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development
42	Web Technology	Employability
43	Computer Graphics	Employability
44	Design and Analysis of Algorithms Lab	Employability
45	Web Technology Lab	Employability
46	Mini Project – I	Employability/Skill Development
47	Soft Skills – III	Skill Development
48	Compiler Design	Employability
49	Optimization Techniques	Employability
50	Unix Operating System	Employability
51	Soft Computing	Employability
52	Industrial Management	Entrepreneurship
53	Compiler Design Lab	Employability
54	Unix/ Linux Lab	Employability
55	Mini Project – II	Employability/Skill Development
56	Soft Skills – IV	Skill Development
57	Digital Image Processing	Employability
58	Advanced Computer Architecture	Employability
59	Mobile Computing	Employability
60	Digital Image Processing Lab	Employability
61	Advanced Computer Architecture Lab	Employability
62	Industrial Training	Employability/Skill Development
63	Project – Part I	Employability/Skill Development
64	Advanced Computer Networks	Employability
65	Data Mining & Warehousing	Employability
66	Service Oriented Architecture	Employability
67	Embedded System	Employability
68	Information Retrieval System	Employability
69	Business Intelligence	Employability
70	Distributed System	Employability
71	Cryptography & Network Security	Employability
72	Distributed Systems Lab	Employability
73	Cryptography and Network Security Lab	Employability
74	Project – Part II	Employability/Skill Development
75	Data Compression	Employability
76	Advanced Concepts in Database Systems	Employability
77	Software Quality Engineering	Employability
78	Probability & Statistics	Employability
79	Big Data And Analytics	Employability
80	Distributed and Parallel Databases	Employability
81	Software Ontology & Web Semantics	Employability
82	Natural Language Processing	Employability

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List of courses having focus on employability/ entrepreneurship/ skill development offered by the Department (2017-18)

S.No.	Name of the Course	Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development
83	Computational Geometry	Employability
84	Agile Software Development	Employability
85	Cloud Computing	Employability
86	Human Computer Interaction	Employability
87	IT in Business	Employability
88	Elements to Soft Computing	Employability
89	Cyber Security	Employability
90	Computer Organization	Employability
91	Introduction to IT Infrastructure Landscape	Employability
92	Introduction to Open Source Software & Open Standards	Employability
93	Open Source Software Lab	Employability
94	Web Programming Through PHP	Employability
95	Object Oriented Programming	Employability
96	Introduction to Virtualization and Cloud Computing	Employability
97	Operating Systems Lab	Employability
98	Web Programming Lab	Employability
99	Virtualization Lab	Employability
100	Introduction to Business Analytics	Employability
101	Applied Statistical Analysis	Employability
102	Applied Statistical Analysis Lab	Employability
103	Programming Logic	Employability
104	Fundamentals of Information Technology	Employability
105	Introduction of Logical Circuit and Digital Design	Employability
106	Remedial English	Employability/Skill Development
107	Mathematics –I	Employability/Skill Development
108	Programming Lab	Employability
109	Information Technology Lab	Employability
110	Data Structures using 'C'	Employability
111	Database Management System	Employability
112	Operating Systems	Employability
113	Management Concepts & Practices	Employability
114	Mathematics –II	Employability/Skill Development
115	Data Structures using 'C' Lab	Employability
116	Database Management System Lab	Employability
117	Operating System Lab	Employability
118	English in Practice -I	Employability/Skill Development
119	Object Oriented Programming	Employability
120	Computer Organization & Architecture	Employability
121	Discrete Structure & Graph Theory	Employability
122	Introduction to Python	Employability

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Department: Computer Engineering and Applications

List of courses having focus on employability/ entrepreneurship/ skill development offered by the Department (2017-18)

S.No.	Name of the Course	Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development
123	Environmental Studies	Skill Development
124	Object Oriented Programming Lab	Employability
125	Python Programming Lab	Employability
126	Soft Skills & Personality Development	Skill Development
127	GUI based Programming Using Visual Basic	Employability
128	System Design & Software Engineering	Employability
129	Computer Networks & Communication	Employability
130	Programming in JAVA	Employability
131	Operational Research	Employability
132	Visual Basic Programming Lab	Employability
133	Programming in Java Lab	Employability
134	Mini Project – I	Employability/Skill Development
135	Professional Communication & Behavioral Grooming	Employability/Skill Development/Entrepreneurship
136	Programming in Advanced Java	Employability
137	Web Technology	Employability
138	Design and Analysis of Algorithms	Employability
139	Advanced Java Lab	Employability
140	Web Technology Lab	Employability
141	.Net Framework using VB.Net	Employability
142	VB.Net Programming Lab	Employability
143	Project	Employability/Skill Development
144	Artificial Intelligence	Employability
145	Enterprise Resource Planning	Employability
146	Software Project Management	Employability
147	Introduction to Distributed System	Employability
148	Digital Marketing & Transformation	Employability
149	Digital Marketing Lab	Employability
150	Advanced Database Management System	Employability
151	Data Mining & Warehousing	Employability
152	Management Information System	Employability
153	Introduction to Big Data	Employability
154	Introduction to Cloud Computing	Employability
155	Software Testing	Employability
156	Introduction to Internet of Things	Employability
157	Cyber Security	Employability
158	Computer Organization & Architecture	Employability
159	Discrete Mathematics	Employability/Skill Development
160	Computer Programming	Employability
161	Fundamentals of Information Technology	Employability
162	Managerial and Organizational Behaviour	Entrepreneurship

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Department: Computer Engineering and Applications

List of courses having focus on employability/ entrepreneurship/ skill development offered by the Department (2017-18)

S.No.	Name of the Course	Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development
163	Environmental Science	Skill Development
164	Computer Programming Lab	Employability
165	Computer Organization & Architecture Lab	Employability
166	Information Technology Lab	Employability
167	Professional Communication Lab-I	Entrepreneurship
168	Theory of Automata and Formal Language	Employability
169	Computer Graphics & Multimedia	Employability
170	Introduction to Microprocessors	Employability
171	Optimization Techniques	Employability
172	Accounting & Financial Management	Entrepreneurship
173	Computer Graphics & Multimedia Lab	Employability
174	Microprocessors Lab	Employability
175	Mini Project – I	Employability/Skill Development
176	Professional Communication Lab-II	Entrepreneurship
177	Object Oriented Programming	Employability
178	Data Structures	Employability
179	Database Management System	Employability
180	Software Engineering	Employability
181	Operating System	Employability
182	Object Oriented Programming Lab	Employability
183	Data Structures Lab	Employability
184	Database Management System Lab	Employability
185	Unix & Shell Programming	Employability
186	Design and Analysis of Algorithm	Employability
187	Computer Networks	Employability
188	Python Programming	Employability
189	Unix & Shell Programming Lab	Employability
190	Design and Analysis of Algorithm Lab	Employability
191	Python Programming Lab	Employability
192	Mini Project – II	Employability/Skill Development
193	Information Retrieval System	Employability
194	Soft Computing	Employability
195	Digital Image Processing	Employability
196	Management Information System	Employability
197	Data Compression	Employability
198	E-Commerce	Employability
199	Service Oriented Architecture	Employability
200	Mobile Application Development	Employability
201	Web Technology	Employability
202	Distributed System	Employability
203	.Net framework using C#	Employability

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Department: Computer Engineering and Applications

List of courses having focus on employability/ entrepreneurship/ skill development offered by the Department (2017-18)

S.No.	Name of the Course	Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development
204	Technical Writing	Skill Development
205	Web Technology Lab	Employability
206	.Net framework Lab	Employability
207	Mini Project – III	Employability/Skill Development
208	Seminar	Skill Development
209	Industrial Training	Employability/Skill Development
210	Data Mining & Warehousing	Employability
211	Cloud Computing	Employability
212	Mobile Computing	Employability
213	Agile Software Development	Employability
214	Cryptography & Network Security	Employability
215	Software Project Management	Employability
216	Artificial Intelligence	Employability
217	Business Intelligence	Employability
218	Theory of Computation	Employability
219	Software Engineering Methodologies	Employability
220	Advanced Concepts in Data Mining	Employability
221	Advanced Concepts in Networking	Employability
222	Probability and Stochastic Processes	Employability
223	Advanced Concepts in Networking Lab	Employability
224	Mobile Ad-hoc Networks	Employability
225	Intelligent Systems	Employability
226	Information Retrieval	Employability
227	Image Processing and Analysis	Employability
228	Design of Distributed Systems	Employability
229	Image Processing and Analysis Lab	Employability
230	Computer Vision	Employability
231	Wireless Sensor Networks	Employability
232	Software and Service Oriented Architecture	Employability
233	Pattern Recognition	Employability
234	High Performance Computing	Employability
235	Web Mining	Employability
236	Dissertation - I	Skill Development
237	Dissertation - II	Skill Development
238	Engineering Physics	Employability
239	Engineering Chemistry	Employability
240	Engineering Physics Lab	Employability
241	Engineering Chemistry Lab	Employability
242	Research Methodology	Employability/Skill Development

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