

JK LAKSHMIPAT UNIVERSITY, JAIPUR

Institute of Engineering and Technology

Minutes of 12th meeting of Board of Studies (BoS) (Sub-Committee: CSE), held on

Saturday: 05.09.2020 at 12:00 Noon via Zoom (Online)

Present:

- 1. Dr. R. L. Raina, Vice-Chancellor, JKLU
- 2. Dr. Sanjay Goel, Director-IET, JKLU, Chairman (BoS-IET)
- 3. Dr. Rahul Banerjee, Director, The LNM Institute of Information Technology, Jaipur
- 4. Mr. Arun Singal, Founder & CEO, IR4tech, Delhi
- 5. Mr. Amit Trivedi, COO, My Recharge Skill Development and Director, Synergy, Jaipur
- 6. Dr. S.P Gupta, Professor-Maths, IET, JKLU
- 7. Dr. Amit Sinhal, Professor-CSE, IET, JKLU
- 8. Dr. Sonal Jain, Professor-CSE, IET, JKLU
- 9. Dr. S. Taruna, Associate Professor-CSE, IET, JKLU
- 10. Dr. Umesh Gupta, Associate Professor-Maths, IET, JKLU
- 11. Dr. Jaya Gupta, Assistant Professor-Maths, IET, JKLU
- 12. Dr. Vipin Kumar Jain, Controller of Examination, JKLU

1. Welcome

Hon'ble Vice-Chancellor, Dr. Roshan Lal Raina extended a heartfelt welcome to all Members of the BoS (Sub-Committee: CSE) of Institute of Engineering and Technology.

Leave of absence was granted to the following member:

1. Mr. R.S. Mani, Deputy Director-General, NIC, Delhi

2. Opening Remarks

In his opening remarks, Hon'ble Vice-Chancellor briefed the Board about the progress on the University's Activity-Mix for the period 31st May, 2020 - 05th September, 2020.

3. Confirmation of Minutes

Minutes of the 11th BoS meeting held on May 30, 2020 were confirmed.

4. Existing & New Programmes: Discussions and Recommendations

Chairman (BoS-IET), Dr. Sanjay Goel, also extended his welcome and proposed the agenda items for consideration by BoS:

- a) He reported that to respond to Covid-19, the Institute started the new semester for ongoing students in online mode from August 04, 2020. The following changes are required to be made in the curriculum in order to meet the constraint of online teaching:
 - i. Since the B. Tech (Batch 2020-2024) courses "Design and Prototyping" (Semester-1; Credit-6), "Fundamental of Automation Engineering" (Semester-2; Credit-6), "Experimental Science" (Semester-1; Credit-3), "Digital Surveying and Mapping" (CE; Semester-3; Credit-4) include significant fabrication/field work, these courses cannot be completed in online mode. Hence, the first two of these courses are partitioned into two courses each, "Design and Prototyping" (I & II; 3 Credit each in first and second semester) and "Fundamental of Automation Engineering" (I & II; 3 Credit each in first and second semester). The first part of both these courses, to be taught in first semester, will be carried out without physical fabrication, and students will be required to use simulation tools. The second part of both these courses, to be taught in second semester, will involve physical fabrication. The third course on "Experimental Science" is being swapped with "Scientific Perspectives" (Semester-2; Credit-2).
 - ii. The "Automation Project" (Semester-5; Credit-2) is recommended to be shifted in Semester-6 for batch 2018-2022.

The external BoS members appreciated these measures.

- b) Because of multiple courses with same titles across different UG and PG programmes, the title of following courses is proposed to be changed as follows:
 - M.Tech (Data Science)
 - o 'Advanced Machine Learning' to 'Applied Advanced Machine Learning'
 - M.Tech (Automation and Robotics)
 - 'Robotic Process Automation' to 'Robotic Process Automation and Applications'

- M.Tech (Artificial Intelligence and Machine Learning)
 - o 'Robotic Process Automation' to 'Software Robotics'
- M.Sc. (Data Analytics)
 - o 'Robotic Process Automation' to 'Software Robotics'
- c) The curriculum of Bachelor of Computer Applications (BCA) was discussed and appreciated (Annexure-1).

All the above agenda items i.e., a, b, and c were agreed by BoS for immediate implementation.

5. Vote of Thanks

Chairman, BoS thanked all the members for taking time out of their busy schedules to attend the meeting and for all their valuable inputs and suggestions, enriching the deliberations.

Date: September 10, 2020

(Dr. Sanjay Goel) Director: IET, JKLU

Chairman: BoS-IET, JKLU

Bachelor of Computer Applications (BCA) at JKLU

Annexure-1

Key Features of the BCA Program at JKLU:

Eligibility: The program is open for 12^{th} pass students of all streams with minimum 55% marks in 12^{th} class.

Batch Size: 60 students.

Credits: 120.

Proposed Course Structure: The BCA program will involve 6 semesters of course work and a 6-8 weeklong Practice School in industry in the summer after 2nd year. They will have the option to replace the 6th sem courses and project by 16 credits of Practice School-II or pursue the semester at a partner university in India or abroad. The curriculum includes many core courses on contemporary and emerging technologies.

The program offers the option of Computing concentrations, e.g., Data Analytics, Cloud Computing and Cyber Security, Robotic Process Automation, etc. In future, more options of the concentrations may be added as per the evolving industry requirements. For earning the concentration in a chosen computing field, the students will have to complete 2 electives and project (total 14 credits) in the chosen field.

JK Lakshmipat University, Jaipur Institute of Engineering and Technology 3-year BCA Proposed Curriculum Structure for the Batch 2020-2024

| Semeste r | Courses | | | | | | | | | | | Credits: Hours | |
|--------------|---|---|--|---|---|---|---|---|-----------------------------|---|---|-------------------|---------|
| I | Problem Solving with Python | | Database Management and Applications | | Mathematics | | Computer Organisation and Systems | | | | Fundamentals of Communicatio n | | 20 : 25 |
| | 3-0-4 | 5 | 3-0-4 | 5 | 3-1-0 | 4 | 3-0-2 | 4 | | | 2-0-1 | 2 | |
| п | Java Programming | | Web Application Development | | Computational Mathematics | | Operating Systems and Linux Administration | | Principles of Management | | Critical Thinking and Storytelling | | 22 : 28 |
| | 3-0-4 | 5 | 3-0-2 | 4 | 3-0-2 | 4 | 2-0-4 | 4 | 3-0-0 | 3 | 2-0-0 | 2 | |
| Ш | C++ Programming and Data Structures | | Android Application Development | | Statistical Computing | | Computer Networks and Network Administration | | Economics and Accounting | | Perspectives on Contemporary Issues | | 22:28 |
| | 3-0-4 | 5 | 3-0-2 | 4 | 3-0-2 | 4 | 2-0-4 | 4 | 3-0-0 | 3 | 2 | | |
| IV | Algorithm Design and Analysis | | Robotic Process Automation Lab | | Applied IoT Multimedia Lab | | Virtualisation and Cloud computing | | Elective I | | Communicatio n and Identity | | 18:25 |
| | | | | | | | | | | | | | |
| V | BCA Practice School-I (6-8 Weeks Duration) - 4 Credits | | | | | | | | | | | | |
| | Applied Artificial Intelligence and Machine Learning | | Software Quality and Testing | | Open Source Software Deployment 3D Design and Animation Lab | | Information Security | | Elective II | | Understanding and Managing | 19:24 | |
| | | | | | | | | | | | Conflicts | | |
| | 3-0-2 | 4 | 2-0-2 | 3 | 0-0-4 | 2 | 3-0-2 | 4 | 4 | | 2 | | |
| VI | BCA Practice School-II OR | | | | | | | | | | | | |
| | Semester at a partner University abroad or in India OR | | | | | | | | | | | | 16 |
| | Project | | Elective III | | Elective IV | | | | | | Criti Thinki Decisio Work | ng for ons at | |
| | 6 | | 4 | | 4 | | | | | | 2 | | |
| | | | | | | | | | | | | | |

Optional features of the program: The BCA program offers the following options:

- 1. Upto 6 courses can be replaced by appropriate Curated MOOCs with prior permission. For example, students with very strong mathematics background in 12th class can replace the 1st semester mathematics course by an appropriate advanced mathematics MOOC.
- 2. Optional Concentrations: (1) Data Analytics, (2) Cloud Computing and Cyber Security, (3) Robotic Process Automation. Students will have to complete 2 electives and project/PS-II (total 14+ credits) in the chosen field.
- 3. Option of 6th semester Practice School-II at a company.
- 4. Option of 6th semester at a partner university in India or abroad.
- 5. UiPath's RPA certification for JKLU students at no extra cost.
- 6. Option of Redhat, Cisco, ORACLE, and IBM certifications at subsidized cost.