# LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING
## (AUTONOMOUS)
### Accredited by NAAC & NBA (CSE, IT, ECE, EEE & ME)
Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada
L.B.Reddy Nagar, Mylavaram-521230, Krishna Dist, Andhra Pradesh, India
## Department of Electronics and Communication Engineering

Date: 04-10-2023

## Consolidated feedback on "Curriculum Development" collected from Stakeholders during the Academic Year: 2022-23

**Industry:**

| Academic Year | Feedback from Industry | Action Taken |
|---|---|---|
| 2022-23 | Courses like: Advance 3G, 4G, 5G Wireless Communications, Wireless Sensor Networks, Nano Technology related, AI related courses are to be included. | Wireless Sensor Networks subject is already included in R20 curriculum; others are suggested for next revision. |
| | Include case study based units for core subjects. | Suggested for next curriculum revision. |
| | Embedded Operating Systems like Linux subject may be included. | Considered and suggested for next curriculum revision. |
| | May include the courses like: Foundations of Data Science, Basics of Sensors and Wearable Technology, Data Acquisition Techniques, Embedded C, Industrial Product Design. | Introduction to Data Science is already included under R20-Minor programme, remaining courses may be considered in next curriculum revision. |
| | Add System Programming with Data Structures, Cloud based backend design. | Considered and suggested for next curriculum revision. |
| | Include tools like Latex for documentation purpose. | Latex is being used by students for documentation and paper publications purpose. |
| | Introduction to Reliability Engineering (Hardware and Software) course can be included. | Considered and suggested for next curriculum revision. |
| | Antennas & Wave Propagation and Microwave Engineering courses can be combined together. | Suggested for next curriculum revision. |
| | Programming with C and Data Structures can be combined as a single course. | Considered and suggested for next curriculum revision. |
| | Analog Communication and Digital Communication can be combined. | Considered and suggested for next curriculum revision. |
| | Data Communications subject is to be focused more on Protocols and Standards. | Suggested for next curriculum revision. |
| | IOT and Computer Architecture and Organization are to be introduced as core courses. | Suggested for next curriculum revision. |

## Alumni:

| Academic Year | Feedback from Alumni | Action Taken |
|---|---|---|
| 2022-23 | Following courses may be included in the syllabus: Embedded C/C++ Programming, RTOS, Embedded System Design with ARM, Embedded Machine Learning, Security on Embedded Devices etc. | RTOS subject is already included in R20 curriculum; others are suggested for next revision. |
| | Sensors and Sensing Systems to be included. | Considered and suggested for next curriculum revision. |
| | GATE oriented syllabus should be framed. | Syllabus of all the core courses is in line with the requirements of GATE and other competitive examinations. |
| | 5G communications subject may be included. | Topics on 5G are included in Advanced Communications subject. |
| | Include Wireless Sensor Networks subject. | This subject is already included in R20 curriculum. |

## Parents:

| Academic Year | Feedback from Parents | Action Taken |
|---|---|---|
| 2022-23 | Industrial visits may be made mandatory. | Students are visiting the Industry every year. |
| | Exposure to various ideation fests and startups. | Incubation centre is conducting Ideation fests at regular intervals. |
| | Certification courses are to be included. | Every semester Department is conducting various certification courses. |
| | Workshops to be conducted. | Workshops are conducted in every semester. |

## Faculty:

| Academic Year | Feedback from Faculty | Action Taken |
|---|---|---|
| 2022-23 | Include the courses related to: 5G Devices and Signal Processing, Medical Assistive Technologies. | Suggested for next curriculum revision. |
| | Open Electives must be placed in MOOCs category through NPTEL. | Already in effect. |
| | If possible include the courses like: Lean Start-up Management, IOT Edge Nodes, Mobile App Development for IOT, IOT in Automotive Systems and Industrial Systems, Smart IOT Applications, Technical Answers for Real World Problems. | Considered and suggested for next curriculum revision. |
| | Introduce Real Time Embedded Systems course. | Suggested for next curriculum revision. |
| | Add latest Microcontrollers in the course. | ARM controllers are included in R20-Microprocessors and Microcontrollers subject. |
| | Include System on chip concepts in VLSI course. | Suggested for next curriculum revision. |
| | Add optimization techniques in Computer Architecture course. | Considered and suggested for next curriculum revision. |
| | 5G Communications, Smart Antennas, Optimization Techniques are to be included. | Suggested for next curriculum revision. |
| | Add IOT related subjects, Industrial Automation Concepts. | Suggested for next curriculum revision. |
| | Data pre-processing and visualization using python course may be added. | Considered and suggested for next curriculum revision. |
| | Advanced Signal Processing Lab may be introduced. | Considered and suggested for next curriculum revision. |
| | Include FPGA and ASIC concepts in VLSI Design course. | Suggested for next curriculum revision. |
| | New courses like Big data, AI and ML are to be included. | Considered and suggested for next curriculum revision. |
| | Invite Alumni students working in MNC's to share their work experience. | It is already in effect. |
| | Wireless Sensor Networks Lab / Network Simulator Lab / IOT Lab to be included. | IOT Lab is included in R20 curriculum. |
| | Suggested to include STM32 Controller in syllabus. | Suggested for next curriculum revision. |

**Students:**

| Academic Year | Feedback from Students | Action Taken |
|---|---|---|
| 2022-23 | Image Processing Lab/Java Lab to be included. | Suggested for next curriculum revision. |
| | Computer Organization, ARM Processors, Linux and Embedded System Design to be included. | ARM controllers are included in R20-Microprocessors and Microcontrollers subject, others are suggested for next curriculum revision. |
| | Separate Transmission lines from EMTL and make it as a separate subject. | Considered and suggested for next curriculum revision. |
| | Industrial visits for students. | Students are visiting the Industry every year. |
| | VLSI Lab should be completely based on Cadence/Mentor Graphics and experiments related to implementations on boards should be done in DSD Lab. | Already implementing in R20 curriculum. |

Coordinator

Head of the Department