**20EC21P2 – ELECTRONIC CIRCUIT ANALYSIS LAB**

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| **Course Category:** | Program Core | **Credits:** | 1.5 |
| **Course Type:** | Practical | **Lecture-Tutorial- Practice:** | 0 - 0 - 3 |
| **Prerequisite:** | Electronic Devices & Circuits and Analysis of Electronic Circuits | **Sessional Evaluation:**  **External Evaluation:**  **Total Marks:** | 40  60  100 |

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| **Course**  **Objectives** | Students undergoing this course are expected to understand: | |
| 1. The design and analysis of various electronic circuits.  2. The behaviour of various rectifiers and amplifiers. | |
| **Course Outcomes** | Upon successful completion of the course, the students will be able to: | |
| CO1 | Analyse the electronic circuits experimentally. |
| CO2 | Design & Analyse the rectifiers (With & Without filters). |
| CO3 | Calculate the frequency response of the RC coupled amplifier practically. |
| CO4 | Analyse the Transistor Voltage Regulator (Series and Shunt). |
| CO5 | Understand the performance of feedback amplifiers practically |
| CO6 | Design & Analyse the various oscillators. |
| **Course**  **Content** | Minimum of **TEN** experiments to be completed out of the following:  **LIST OF EXPERIMENTS**   1. Rectifiers without Filters (HWR, FWR, BR). 2. Rectifiers with Filters (C, LC, CLC). 3. R-C Coupled Amplifier. 4. FET Amplifier. 5. C88olpitts Oscillator. 6. Current Series Feedback Amplifier (With & Without feedback). 7. Determination of fT of a Transistor. 8. R-C Phase Shift Oscillator. 9. Wien Bridge Oscillator. 10. Darlington Pair Amplifier. 11. Transistor Voltage Regulator (Series and Shunt) 12. Voltage Series Feedback Amplifier (With & Without feedback). | |

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| Contribution of Course Outcomes towards achievement of Program Outcomes (3-High, 2-Medium, 1-Low) | | | | | | | | | | | | | | |
|  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
| CO1 | 3 | 3 | 2 | 2 | 1 | - | - | 1 | - | 2 | - | 2 | 3 | 3 |
| CO2 | 3 | 3 | 2 | 2 | 1 | - | - | 1 | - | 2 | - | 2 | 3 | 3 |
| CO3 | 3 | 3 | 3 | 1 | 1 | - | - | 1 | - | 2 | - | 2 | 3 | 3 |
| CO4 | 3 | 3 | 2 | 2 | 1 | - | - | 1 | - | 2 | - | 2 | 3 | 3 |
| CO5 | 3 | 3 | 2 | 2 | 1 | - | - | 1 | - | 2 | - | 2 | 3 | 3 |
| CO6 | 3 | 3 | 2 | 2 | 1 | - | - | 1 | - | 2 | - | 2 | 3 | 3 |