**LESSON PLAN**

**Subject Code & Name: LICA**

**Branch: E.C.E-B Class / Semester: III/IV-SEM 1 Academic Year:2014-15**

|  |  |  |  |  |  |  |
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| **Period** | **Date (Tentative)** | **Topic** | **Unit No.** | **Teaching Methodology** | **Remarks** | **Corrective action upon review** |
| **1** | 25.8.14 | **INTEGRATED CIRCUITS** | **UNIT I** | CB |  |  |
| 2 | 26.8.14 | Differential Amplifier Introduction |  | CB |  |  |
| 3 | 26.8.14 | DC and AC analysis of Dual input Balanced output Configuration, |  | CB |  |  |
| 4 | 28.8.14 | Properties of other differential amplifier configuration |  | CB |  |  |
| 5 | 29.8.14 | Dual Input Unbalanced Output |  | CB |  |  |
| 6 | 1.9.14 | Single Ended Input – Balanced |  | CB |  |  |
|  | 1.9.14 | Unbalanced Output |  | CB |  |  |
| 7 | 2.9.14 | DC Coupling |  | CB |  |  |
| 8 | 2.9.14 | Cascade Differential Amplifier Stages |  | CB |  |  |
| 9 | 4.9.14 | Level translator |  | CB |  |  |
| 10 | 5.9.14 | Characteristics of OP-Amps, Integrated circuits-Types, Classification | **UNIT II** | CB |  |  |
| 11 | 8.9.14 | Package Types and temperature ranges |  | CB |  |  |
| 12 | 9.9.14 | Power supplies, Op-amp Block Diagram |  | CB |  |  |
| 13 | 10.9.14 | ideal and practical Op-amp specifications |  | CB |  |  |
| 14 | 11.9.14 | DC and AC characteristics |  | CB |  |  |
| 15 | 12.9.14 | 741 op-amp & its features, FET input. Op-Amps |  | CB |  |  |
| 16 | 15.9.14 | Op-Amp parameters & Measurement |  | CB |  |  |
| 17 | 16.9.14 | Input & Out put Off set voltages & currents, slew rates, CMRR, |  | CB |  |  |
| 18 | 16.9.14 | PSRR, drift |  | CB |  |  |
| 19 | 18.9.14 | Frequency Compensation technique. |  | CB |  |  |
|  |  | **LINEAR APPLICATIONS OF OP- AMPS** | **UNIT III** | CB |  |  |
| 20 | 19.9.14 | Inverting amplifier, Non-inverting amplifier |  | CB |  |  |
| 21 | 22.9.14 | Integrator |  | CB |  |  |
| 22 | 23.9.14 | differentiator |  | CB |  |  |
| 23 | 23.9.14 | Difference amplifier,. |  | CB |  |  |
| 24 | 25.9.14 | Instrumentation amplifier, |  | CB |  |  |
| 25 | 26.9.14 | AC amplifier, |  | CB |  |  |
| 26 | 29.9.14 | V to I, I to V converters, Buffers |  | CB |  |  |
| 27 | 30.9.14 | **NON-LINEAR APPLICATIONS OF OP- AMPS:** Non- Linear function generation, | **IV** | CB |  |  |
| 28 | 30.9.14 | Comparators |  | CB |  |  |
| 29 | 2.10.14 | Multivibrators |  | CB |  |  |
| 30 | 3.10.14 | Triangular and Square wave generators |  | CB |  |  |
| 31 | 6.10.14 | Log amplifiers |  | CB |  |  |
| 32 | 7.10.14 | Anti log amplifiers |  | CB |  |  |
| 33 | 9.10.14 | Precision rectifiers. |  | CB |  |  |
| 34 | 20.10.14 | **ACTIVE FILTERS:** Introduction, Butter worth filters – 1st order LPF | **V** | CB |  |  |
| 35 | 21.10.14 | 2nd order LPF |  | CB |  |  |
| 36 | 21.10.14 | HPF filters |  | CB |  |  |
| 37 | 23.10.14 | Band pass filters. |  | CB |  |  |
| 38 | 24.10.14 | Band reject filters. |  | CB |  |  |
| 39 | 27.10.14 | All pass filters |  | CB |  |  |
| 40 | 28.10.14 | **TIMERS & PHASE LOCKED LOOPS**: Introduction to 555 timer, functional diagram | **VI** | CB |  |  |
| 41 | 28.10.14 | Monostable operations and applications |  | CB |  |  |
| 42 | 29.10.14 | Astable operations and applications |  | CB |  |  |
| 43 | 31.10.14 | Schmitt Trigger. |  | CB |  |  |
| 44 | 31.10.14 | PLL - introduction, block schematic |  | CB |  |  |
| 45 | 3.11.14 | principles and description of individual blocks |  | CB |  |  |
| 46 | 4.11.14 | 565 PLL, Applications of PLL |  | CB |  |  |
| 47 | 4.11.14 | frequency multiplication, frequency translation |  | CB |  |  |
| 48 | 6.11.14 | AM, FM & FSK demodulators. Applications of VCO (566). |  | CB |  |  |
| 49 | 7.11.14 | **D to A & A to D CONVERTERS :** Introduction, basic DAC techniques, | **VII** | CB |  |  |
| 50 | 10.11.14 | weighted resistor DAC |  | CB |  |  |
| 51 | 11.11.14 | R-2R ladder DAC |  | CB |  |  |
| 52 | 11.11.14 | inverted R-2R DAC |  | CB |  |  |
| 53 | 13.11.14 | IC 1408 DAC |  | CB |  |  |
| 54 | 14.11.14 | Different types of ADCs - parallel comparator type ADC |  | CB |  |  |
| 55 | 17.11.14 | counter type ADC, successive approximation ADC |  | CB |  |  |
| 56 | 18.11.14 | dual slope ADC |  | CB |  |  |
| 57 | 18.11.14 | DAC and ADC Specifications |  | CB |  |  |
| 58 | 20.11.14 | Specifications AD 574 (12 bit ADC). |  | CB |  |  |
| 59 | 21.11.14 | **ANALOG MULTIPLIERS AND MODULATORS** | **VIII** | CB |  |  |
| 60 | 25.11.14 | Four Quadrant multiplier |  | CB |  |  |
| 61 | 27.11.14 | balanced modulator |  | CB |  |  |
| 62 | 1.12.14 | IC1496, , |  | CB |  |  |
| 63 | 2.12.14 | Applications of analog switches and Multiplexers |  | CB |  |  |
| 64 | 5.12.14 | Sample & Hold amplifiers. |  | CB |  |  |

**CB: CHALK & BOARD PPT: POWER POINT PRESENTATION**