**ASSESSMENT**

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| **Date:** | 03-06-2020 | **Name:** | Sheela Golasangi |
| **Course:** | Electrical Engineering | **USN:** | 4AL16EC068 |
| **Topic:** | What is Electrical Engineering? | **Semester & Section:** | VIII  ‘B’ |
| **Github Repository:** | Sheela-Course |  |  |

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| **REPORT**  The session is hosted by Prof. Aniruddhan, Department of Electrical Engineering, and IIT Madras on topic what is electrical engineering? He speaks about what are EE and the interested areas in the field.  **Outline**   * What is Electrical Engineering; History of EE * Why and how to choose to pursue a UG degree in EE * EE Sub-specialties * A bit about PG degree in EE * Job and research opportunities in India   **What do I understand by EE**   * Historically, engineering at university level was branched into “Civil” and “Military” * Electrical: Refers to devices and systems that use electricity or electromagnetism in various forms. * Many EE disciplines overlap with other areas of engineering and applied science.   **C:\Users\india\Downloads\WhatsApp Image 2020-06-03 at 6.51.42 PM (4).jpeg**  **C:\Users\india\Pictures\Whatsapp\WhatsApp Image 2020-06-03 at 6.51.43 PM (4).jpeg**  Further he speaks about the present and future of the electrical engineering and opportunities in India.  **C:\Users\india\Pictures\Whatsapp\WhatsApp Image 2020-06-03 at 6.51.44 PM (15).jpeg**  **Considering a UG degree in EE**   * Normally chosen in 6th semester of UG or later * Recent trend: more specialization at the UG level * Perfectly to have a broad based UG with more basic courses and specialize only at PG level * Every stream has potential for research and development * Sample “elective” courses based on interest * Choose specialization based on your interest and aptitude * Remember that “interest” can be of many forms – research, financial, jobs, “cool” area etc   Also he speaks about why is it engineering and not science, transition from high school physics to EE, why to choose EE, which EE stream to choose, and organization of EE departments, and also about academic “credit” system and CGPA.  **Foundational Courses**   * Basic science and mathematics * Electric Circuit theory * Signals and systems * Digital systems * Analog circuits * Digital signal processing   **EE sub- Specialties**  He spoke about steams of EE they are,   * Communications, signal processing, information theory * Solid state (or semiconductor) devices * VLSI or integrated circuits and systems * Control engineering * Instrumentation * Power systems, electrical machines, power electronics * Photonics and optoelectronics * Electromagnetics and microwave engineering   Further he speaks about microelectronics in this science and technology of making very small electronic components and systems, foundation of the digital revolution, enabling advances in many other areas of EE, and integrated circuits (ICs).  C:\Users\india\Pictures\Whatsapp\WhatsApp Image 2020-06-03 at 6.51.44 PM (14).jpeg  C:\Users\india\Downloads\WhatsApp Image 2020-06-03 at 6.51.42 PM (3).jpeg  C:\Users\india\Downloads\WhatsApp Image 2020-06-03 at 6.51.42 PM (2).jpeg  **EE job opportunities in India**  UGs: typically go in for a variety of jobs  PGs: larger percentage go in for core EE jobs   * Multinationals * India start ups * Finance * Data analytics * IT/software   Furthermore he spoke about the GATE exam, PhD degree, MS degree, MTech (or ME) and research opportunities in India. |