**e-Learning Material to be uploaded on Virtual C4**

**Course/ Programme:** M.Sc. Applied Electronics

**Year & Semester:** IInd Year Sem-IV

**Subject:** - (**4AE1**) Microwave Engineering

**References**:

**Basic Building Blocks of Microwave Engineering**

**Prof. Amitabha Bhattacharya**

**Department of Electronics and Communication Engineering, IIT Kharagpur**

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| **Sr. No.** | **Topic** | **e-content Link \*** |
|  |
| 1 | Concept of microwave mode | <https://www.youtube.com/watch?v=2Ncod_d9PRg> |
| 2 | Mathematical Model of TEM Mode | <https://www.youtube.com/watch?v=hp8x-Wxnlmw> |
| 1 | Mathematical Model of TE and TM Mode and Impedance Concept | <https://www.youtube.com/watch?v=4P_S_NZ_QBk&feature=emb_title> |
| 2 | Rectangular Waveguide | <https://www.youtube.com/watch?v=CLS9Kqn5w5A> |
| 3 | Circular Waveguide | <https://www.youtube.com/watch?v=6Z_ezp4bufE> |
| 4 | Microwave Resonator | <https://www.youtube.com/watch?v=ydjf_lVHpjk> |
| 5 | Microwave Attenuator | <https://www.youtube.com/watch?v=NZshGlAjOtI> |
| 6 | Microwave Detector and Switching Diode | <https://www.youtube.com/watch?v=ObKgiPIbY9k> |
| 7 | Microwave Tubes Part I | <https://www.youtube.com/watch?v=do3RkLocYCs> |
| 8 | Microwave Tubes Part II | <https://www.youtube.com/watch?v=0QBStvwz3A4> |
| 9 | Microwave Solid State Devices Oscillator and Amplifier | <https://www.youtube.com/watch?v=8Ru6PWZxYE4> |
| 10 | Microwave Transistor | <https://www.youtube.com/watch?v=4tDXOaCV5TM> |

\* e-content:

**References:** NPTEL- Youtube Channel

**Name of the teacher:** D.R. Solanke

**Designation:** Assistant Professor

**Department:** Applied Electronics, SGB Amravati University, Amravati.