

**Birla Institute of Technology and Science, Pilani**  
**Rajasthan**  
**Practice School Division**

**Station:** Military College of Electronics and Mechanical Engineering, Secundrabad

**Duration:** Seven Weeks

**Date of Start:** May 31, 2021

**Date of Submission:** June 27, 2021

**Title:** Design of SDR for HD Video communication

**Students:**

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2019A8PS0184P

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**Keywords:**

MIMO-OFDM, Polar codes, USRP, HD Video communication, DVB, H.264, H.265

**Project Areas:**

Wireless communications, Digital communications, Software defined Radio, Video codecs

**Abstract:**

The project aims to implement a MIMO-OFDM + Polar coding system using USRP for HD video communication. The video is processed using the H.264 / H.265 codecs, and the system supports both transfer and streaming of the video. A power amplifier is also selected in order to improve the system's performance.

Student Signature

Mentor Signature