



Manu T S
Electrical Engineering
Indian Institute of Technology Bombay
Specialization: Communication Engineering

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M.Tech.
Male
DOB: 30-08-1986

Examination	University	Institute	Year	CPI / %
Post Graduation	IIT Bombay	IIT Bombay	2013	8.27
Undergraduate Specialization: Electronics and Communication Engg.				
Graduation	NIT Warangal	NIT Warangal	2010	6.90

AREAS OF INTEREST

- Communication Systems
- Digital Signal Processing
- Error Correcting Codes
- Information Theory
- Wireless Communication
- Software Defined Radio

TECHNICAL SKILLS

- **Softwares Skills:** GNU Radio, Scipy, Scilab and L^AT_EX
- **Programming Skills:** C, C++ and Python
- **Software Defined Radio Platforms:** USRP and RTL SDR

PROJECTS AND SEMINARS

- **M.Tech. Project: Application of LDPC codes to Multiuser Communications** (July 2013-Present)
Guide - Prof. Sibiraj B Pillai, IIT Bombay.
We study LDPC encoding and decoding algorithms and extend them to multiuser scenario. Blocks for belief-propagation decoder and back-substitution encoder are designed.
- **Google Summer of Code, 2013: LDPC codes and more FEC in GNU Radio** (June 2013-Present)
Mentor - Dr.-Ing. Jens Elsner, CEL, KIT.
In this project we develop generic encoders and decoders for LDPC Codes in GNU Radio.
- **DARPA Spectrum Challenge:**(March 2013-Present)
During the hurdles and wild-card tournaments we designed a transmitter receiver pair using USRP and GNU Radio competing or cooperating with other pairs.
- **M.Tech. Seminar: Resource allocation in Wireless Networks** (Nov. 2011)
Guide - Prof. Sibiraj B Pillai, IIT Bombay.
We studied optimal power allocation in a flat-fading multiple access channel in an Information Theoretic setup
- **Industrial Training: BSNL Kerala Circle** (May 2008 - June 2008)
Various aspects of GSM Architecture were studied. Specifically, training on OMC Radio, OMC Switch, Radio Planning and BSS were obtained

COURSE WORK

- Communication Systems
- Information Theory
- Digital Signal Processing
- Statistical Signal Analysis
- Markov chains and Queuing Systems
- Error Correcting Codes
- Digital Message Transmission
- Wireless Communication
- Applications of Linear Algebra
- Optimization Techniques

ACHIEVEMENTS

- Our team secured a spot in the finals of **DARPA Spectrum Challenge**.
- Our team won first prize in Junk-Yard wars in Technozion 2010.
- **Best outgoing student** of the year 2004 in JNV Malampuzha.

WORK EXPERIENCE

- **Graduate Engineering Trainee (C & I), Adani Power Limited** (July 2010-January 2011)

HOBBIES

- Reading, coding, music and movies.