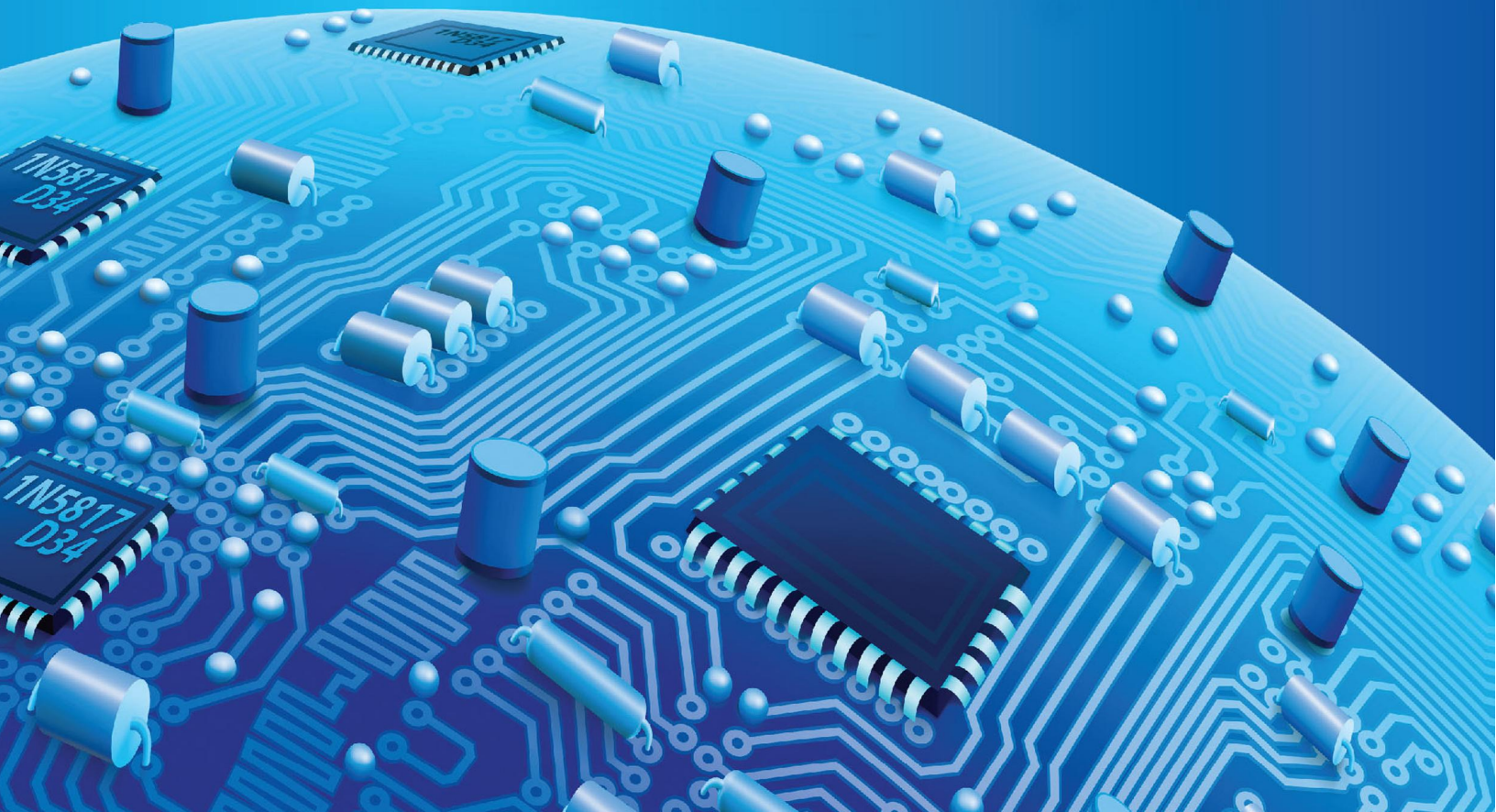




**SPIRO**  
SOLUTIONS PVT LTD

**COMMUNICATION  
PROJECT TITLE  
2017 - 2018**



## MATLAB COMMUNICATION TITLES 2017-2018

ORTHOGONAL FREQUENCY-DIVISION MULTIPLEXING(OFDM)			
S.NO	PROJECT CODE	PROJECT TITLES	YEAR
1	ITCM01	New PTS Schemes For PAPR Reduction Of OFDM Signals Without Side Information	2017
2	ITCM02	Design Space-Time Trellis Coded Inter-Carrier Interference Parallel Cancellation Architectures for OFDM Systems	2017
3	ITCM03	Full Duplex Delay Diversity Relay Transmission Using Bit-Interleaved Coded OFDM	2017
4	ITCM04	Pilot Optimization For Estimation Of High-Mobility OFDM Channels	2017
5	ITCM05	Electromagnetic Emission-aware Scheduling for the Uplink of Multi-cell OFDM Wireless Systems	2017
7	ITCM06	OFDM receiver for fast time-varying channels using block-sparse Bayesian learning	2016
6	ITCM07	Beam forming OFDM Performance under Joint Phase Noise and I/Q Imbalance	2016
8	ITCM08	Low-Complexity Modem Design for GFDM	2016
COGNITIVE RADIO NETWORK(CRN)			
S.NO	PROJECT CODE	PROJECT TITLES	YEAR
1	ITCM09	Optimal Eigenvalue Weighting Detection for Multi-Antenna Cognitive Radio Networks	2017
2	ITCM10	On Secure Underlay MIMO Cognitive Radio Networks with Energy Harvesting and Transmit Antenna Selection	2017

<b>3</b>	<b>ITCM11</b>	Secure Communication in OFDMA Based Cognitive Radio Networks: An Incentivized Secondary Network Coexistence Approach	<b>2017</b>
<b>4</b>	<b>ITCM12</b>	Design of Cooperative Non-Orthogonal Multicast Cognitive Multiple Access for 5G Systems: User Scheduling and Performance Analysis	<b>2017</b>
<b>5</b>	<b>ITCM13</b>	Spectrum Sensor Employing Continuous Pilot Tones in Cognitive Radio Systems	<b>2017</b>
<b>6</b>	<b>ITCM14</b>	Antenna Selection For Dual-Hop Cognitive Radio Networks: A Multiple-Relay Scenario	<b>2017</b>
<b>7</b>	<b>ITCM15</b>	Interference Efficiency: A New Metric to Analyze the Performance of Cognitive Radio Networks	<b>2017</b>
<b>8</b>	<b>ITCM16</b>	Sniffer Channel Assignment with Imperfect Monitoring for Cognitive Radio Networks	<b>2016</b>
<b>9</b>	<b>ITCM17</b>	Low Complexity Energy Detection for Spectrum Sensing with Random Arrivals of Primary Users	<b>2016</b>
<b>10</b>	<b>ITCM18</b>	Outage Performance of Cognitive Relay Networks with Wireless Information and Power Transfer	<b>2016</b>
<b>MUTIPLE INPUT MUTIPLE OUTPUT(MIMO)</b>			
<b>S.NO</b>	<b>PROJEC T CODE</b>	<b>PROJECT TITLES</b>	<b>YEAR</b>
<b>1</b>	<b>ITCM19</b>	Precoding for MIMO Channels in Cognitive Radio Networks With CSI Uncertainties and for Compound Capacity	<b>2017</b>
<b>2</b>	<b>ITCM20</b>	A Scalable Framework for CSI Feedback in FDD Massive MIMO via DL Path Aligning	<b>2017</b>
<b>3</b>	<b>ITCM21</b>	Scalable Source Transmission with Unequal Frequency Reuse in MIMO Cellular Networks	<b>2017</b>

4	ITCM22	Dynamic User Grouping and Joint Resource Allocation with Multi-Cell Cooperation for Uplink Virtual MIMO Systems	2017
5	ITCM23	New Beamforming Designs for Joint Spatial Division and Multiplexing in Large-Scale MISO Multi-user Systems	2017
6	ITCM24	BER Analysis for Spatial Modulation in Multicast MIMO Systems	2016
7	ITCM25	Performance Analysis of Dual-Hop MIMO AF Relaying Network with Multiple Interferences	2016
8	ITCM26	Performance Evaluation of Best Path Selection in a Multi-Hop Decode-and-Forward Cooperative System	2016
9	ITCM27	New Results on Transceiver Design for Two-hop Amplify-and-forward MIMO Relay Systems with Direct Link	2016
<b>OPTICAL COMMUNICATION</b>			
<b>S.NO</b>	<b>PROJEC T CODE</b>	<b>PROJECT TITLES</b>	<b>YEAR</b>
1	ITCM28	Optical MIMO-OFDM with Generalized LED Index Modulation	2017
2	ITCM29	PAPR Reduction for Hybrid ACO-OFDM Aided IM/DD Optical Wireless Vehicular Communications	2017
3	ITCM30	Performance of Wireless Optical Communication In S-Distributed Turbulence	2016

**RELAY-COMMUNICATION**

<b>S.NO</b>	<b>PROJECT CODE</b>	<b>PROJECT TITLES</b>	<b>YEAR</b>
<b>1</b>	<b>ITCM31</b>	Energy Efficiency Maximization Precoding Design for SWIPT in MIMO Two-Way Relay Networks	<b>2017</b>
<b>2</b>	<b>ITCM32</b>	Joint Transceiver Design for Secure Downlink Communications over an Amplify-and-Forward MIMO Relay	<b>2017</b>
<b>3</b>	<b>ITCM33</b>	A Near BER-Optimal Decoding Algorithm for Convolutional Coded Relay Channels with the Decode-and-Forward Protocol	<b>2017</b>

**SATELLITE COMMUNICATION**

<b>1</b>	<b>ITCM34</b>	A Novel Beam forming and Combining Scheme for Two-Way AF Satellite Systems	<b>2016</b>
<b>2</b>	<b>ITCM35</b>	Channel Estimation and Detection in Satellite Communication Systems	<b>2016</b>

