Agilent Supported RF CAD Center

Lab Courses conducted for U.G and P.G students

S.No	Name of the Course	Subject Name	Experiments done using ADS
1	B.E – Electronics & Communication	RF Systems Lab	Passive components like Antenna, Filter, Coupler, Power divider, Matching Network.
2	M.E – Wireless Technologies	RF Systems Lab	Active &Passive components like Antenna, Filter, Coupler, Power divider, Matching Network , Amplifier
3	M.E – Communication Systems	RF Systems Lab	Active & Passive components like Antenna, Filter, Coupler, Power divider, Matching Network , Amplifier

Academic Research

Research Leading to Ph.D

S.No	**Research Scholar Name**	**Supervisor Name**	**Topic**	**Status**
1.	B.Manimekalai	Dr.(Mrs.)S.Raju	Smart Antennas	Ongoing
2.	A.Thenmozhi	Dr.(Mrs.)S.Raju	Synthesis of RF Filters	Ongoing
3.	S.Kanthamani	Dr.(Mrs.)S.Raju	Analysis of MEMS Switches	Ongoing
4.	R.Ramesh Krishnan	Dr.(Mrs.)S.Raju	Active Integrated Antenna	Ongoing
5.	K.Annaram	Dr.(Mrs.) S.Raju	MEMS Mixer	Ongoing

Sponsored Projects done using Agilent ADS

S.No	Project Area	Sponsoring Agency	Description
1.	Prototype Fabrication of MEMTENNA	RCI, Hyderabad	MEMTENNA is a MEMS Phase shifter based Phased Array Antenna which is used for Defense Applications.
2.	Design and simulation of MEMTENNA	RCI, Hyderabad.	To design a MEMS based phased array antenna. The design and simulation of the antenna was carried out using an EM simulator.
3.	CAD of Ka band Mixers	DEAL, Dehradun	To develop the design data for Coplanar wave guide mixer, SPDT and SPST switches for receiver applications.
4.	CAD of CPW Discontinuities	DRDL/RCI Hyderabad	Development of Coplanar wave guide Computer Aided Design data for discontinuities.
5.	CAD of CPW Components	DRDL/RCI Hyderabad	Development of Computer Aided Design data for Coplanar wave guide components.
6.	CAD of ECPW Components	AICTE, New Delhi	Development of Computer Aided Design data for Elevated Coplanar wave guide components.

Projects done by Students

S.No	Student Name	Project Title	Year
1.	V. Dasarathan	Wideband Wireless Channel Modeling	2007
2.	R. Balathilagar	Design of Radio Frequency identification Reader	2007
3	V. Sarulatha	Design of Active Integrated antennas for Ultra wideband applications	2007
4	S. Elamathy	A 5 to 8 GHz Wideband Low Noise Amplifier for Wimax applications	2007
5.	A. Kannamal	Simulation of WLAN System using Agilent Ptolemy Co-Simulator	2007
6.	M. Muthukumar	Ulta Wideband (UWB) Channel Modeling for WLAN	2007
7.	S.Prasanna Subramaniam	Analysis and Simulation of Frequency Agile Microstrip Patch Antenna for Military Applications	2007
8.	K.N. Elankumaran	Channel Modeling for Ultra Wideband Systems	2007
9.	P.Srinivasa Bharatwaj	Design of Micromachined Membrane supported Hairpin Line Bandpass filter	2006
10.	P.Desigan	Design of DC to 18GHz MMIC voltage variable attenuator and Digital Attenuator	2006
11.	V.Periyasamy	Low noise Active Integrated Antenna for Wimax applications	2006
12.	B.Ramakrishna Choudary	Design of MMIC Tunable notch filter	2006
13.	R.Ranjithkumar	Inductance Modeling for on chip Interconnects using CPW structures	2006
14.	Srivatsun	Design and optimization of Yagi-Uda Antenna using PSO	2006
15	Ananth	Design of Wimax mixers	2006
16	Umesh	Design of Power Amplifier for Wimax applications	2006
17.	Henry Dass	Design and simulation of coupled line band pass filters	2006
18.	Shakthi srinivasan	Microstrip Antenna design for Wimax applications	2006
19.	S.Suresh	Low noise amplifier design for Wimax applications	2006
20.	C.Mahendran	Oscillator design for Wimax application	2006
21.	Sakthivel	Design of Multilayer Antennas for RFID applications	2005
22.	A.Kavitha	High Q MEMS Filters	2004
23.	Gowri Shankar	Design of Hair pin filters for wireless	2004

		applications	
24.	Natarajan	Design and simulation of MEMS Phase shifters	2004

Publications

S.No	Title	Authors	Name of the conferences	National/ International	Year
1	Uniplanar MEMS coupler for Wireless Applications	Mrs. Annaram, Dr.(Mrs.)S.Raju Dr.V.Abhaikumar	ISSS- MEMS 2006	National	2006
2	Analysis of dual band / Smart Fractal antenna Using FDTD method	Mrs.B.Manimegalai Dr.(Mrs.)S.Raju Dr.V.Abhaikumar	ISSS- MEMS 2006	National	2006
3	A microstrip Feed Slotline Coupler	Mr.Ramesh Krishnan Dr.(Mrs.)S.Raju Dr.V.Abhaikumar	ISSS- MEMS 2006	National	2006
4	Miniaturized Wilkinson Power Divider for WiMAX Wireless Standard (Communicated)	Ms.S.Ramya Shankari Dr.(Mrs.)S.Raju Dr.V.Abhaikumar	Microwave 06	National	2006
5	MEMS Based Reflective Type Phase shifter	R.Rameshkrishnan Dr.(Mrs).S.Raju Dr.V.Abhaikumar	ISSS 05	International	2005
6	MEMS Based Dual Power Amplifier for Software Defined Radio Applications	R.Rameshkrishnan S.Kanthamani Dr.(Mrs).S.Raju Dr.V.Abhaikumar	IEEE ICPWC05	International	2005
7	A MEMS Based Tunable Bandwidth	S.Deepak Ram Prasath Dr.(Mrs).S.Raju	ISSS 05	International	2005

	Filter for Wireless Applications	Dr.V.Abhaikumar			
8	A novel miniaturized filter on Micromachined multilayered substrates	S.Deepak Ram Prasath Dr.(Mrs).S.Raju Dr.V.Abhaikumar	APMC 2005	International	2005
9	MEMS Based Fractal Antenna for Space Based Radar Application	Mrs.Manimegalai Dr.(Mrs).S.Raju Dr.V.Abhaikumar	IRSI-2005	International	2005
10	Application of ANN algorithm for the synthesis of Microwave Filter	A.Thenmozhi S.Ramya Shankari S.Deepak Ram Prasath Dr.(Mrs.)S.Raju Dr.V.Abhaikumar	APMC 2004	International	2004
11	MEMS based Dual Polarized Patch Antenna for wireless applications	B.Manimegalai Dr.(Mrs).S.Raju Dr.V.Abhaikumar	APMC 2004	International	2004