

Name: **RAVI KUMAR RAYALA**

Designation: Assistant Professor

Department: Electronics and Communication Engineering

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Experience(in years): Teaching: 17 Research: 06 Others (Industry): 4yrs



### **Profile description:**

For over 20 years served Industry and Academic institutions at various capacities. In association with the industry he worked on Networking, Security, and Storage products in cutting-edge technologies like TCP/IP stack, MIB, IPS/IDS, and CIM/CDM. Currently, he is working on AI-based Re-configurable Embedded System architectures for Wireless Communication. His interest includes Signal Processing, Hardware-Software Co-design and Systems Engineering.

### **1. Educational / Technical qualifications:**

S.No	Level (UG / PG / Ph.D)	Year of passing	Specialization
1	M. Tech.	1998	Communication Systems
2	B.E.	1996	Electronics & Communication Engineering

### **2. Teaching and Learning:**

#### 2.1 Subjects Handled:

Wireless Communications, Communication Systems, Advanced Digital Signal Processing, Digital Signal Processing, Embedded Systems, H/w-S/w Co-design, Network Security Cryptography, Data Communications, Computer Organization, Operating Systems, Control Systems, Linux system Concepts, Embedded Software.

#### 2.2 Novel Teaching & Learning Techniques adopted: Project based learning, PBL.

#### 2.3 Involvement in curriculum updating /Design:

- Academic Committee Member for Dept. of ECE for Curriculum design.

### **3. Co-curricular and Extra-Curricular Activities**

#### 3.1. Interests and Hobbies: Games

#### 3.2. CCA/ECA Organized:

#### 3.3. CCA/ECA participated:

- Project Evaluation committee member for M.Tech (Embedded Systems).
- Department Entrepreneurship cell in-charge.
- Student IETE Society in-charge

#### 3.4. Counseling and Mentoring Activity:

- Counselor and mentor for B.Tech Students.

Committees involved in:

Department level:

- Academic Committee Member
- Project Evaluation Committee Member
- Technical Seminar Evaluation Member

Institute Level:

- Embedded Systems Research Group Coordinator
- College R&D cell in-charge
- Entrepreneurship cell in-charge

### **4. Conference / Workshop / Seminar / Guest Lectures:**

4.1. Conducted:

4.2 Attended :

Faculty development programmes attended:

- “Challenges in FPGA based digital systems design” sponsored by AICTE - June’2011.
- “Beyond 3G wireless communications” sponsored by AICTE in the year 2012
- “Embedded System: hardware software and design aspects” at NIT-CALICUT.
- “Industrial & Research Perspectives on Advanced Wireless Technologies” at PSG Tech.
- “Challenges in Analog and Digital IC Design” at Mallareddy college of Engineering

Workshops / conferences attended:

- A workshop on “Microwaves through Software” at NIT- TIRUCHIRAPPALLI.
- A workshop on “Cyber Physical Systems Applications and Open Challenges” at IITH.
- A Symposium on “Cyber Defence” August’2013 at Amrutha University.
- A workshop on “COGNITIVE RADIO” in February’2012 by IITH.
- ORACLE DEVELOPER CONFERENCE – An International Conference in 2012
- A national level summit on “CLOUD COMPUTING” in 2011
- A workshop on “SIGNALS & SIGNAL PROCESSING” in July’2010 at JNTUH
- A workshop on “8051 MICROCONTROLLER” in April’2010 at JNTUH.
- SUN TECH DAYS - An international conference in 2008, 2009
- A workshop on “Middleware Technologies” in December’2009.
- A workshop on “MOBILE COMPUTING” in August’2009.
- A workshop on “CLOUD COMPUTING” in December’2011.
- NI conference on LabVIEW in 2006
- HP b-series Storage servers - A national level conference in 2005
- A workshop on “Entrepreneurship Development” in 2005 at JNTUH.
- A workshop on MATLAB Tools in 2005.
- A workshop “RF system design” by Agilent Technologies in 2005.
- A workshop on “speech signal processing and coding” in July 2012 at NIT-W.
- A Symposium on various aspects by “National Instruments”.
- Certificate program on Embedded Systems by Rocsys Technologies (P) Ltd., Hyderabad.
- A refresher course on AI Techniques
- “Real Time Signal Processing” at Osmania University, HYDERABAD
- “Institutional Governance & Leadership skills to Academic Administrators” by JNTUH.
- An awareness Workshop on “Outcome Based Education and Accreditation” at JNTUH
- A FOUR day intensive course on “Over view of GNSS and it applications”
- A FIVE day FLI course on “Distributed computing” by IUCEE.
- A FIVE day FLI course on “Advanced signal processing” by IUCEE.
- A FIVE day course on “Contemporary Radar System Design and Signal Processing”
- A FIVE day Short Term Course On “5G Wireless Communication & Its Technologies”

- Attended Workshops on ‘Outcome based Education’ for different faculty layers.
- Attended one week course on “Value based education”
- Attended various seminars on Effective teaching and Research for faculty.
- Undergone RTP at IISc, Bangalore
- In-plant Training at Power Electronics Corporation from 03-05-97 to 30-05-97 during M.E.

### 5.Academic Contribution and Research &Consultancy:

5.1.Invited Lectures:

5.2. Articles/Chapters published in Books:Nil

5.3. Books published as single author or as editor:Nil

5.4. ProjectsGuided:

a)UG: b)PG:

Research Interests:

5.5. Ph.D students:Nil

a)Enrolled:Nil

b)Submitted:Nil

c) Awarded:Nil

5.6. Papers published in reviewed Journals:

S.No	Title of the Paper	Journal Name Vol.No. PP	ISBN/ISSN No.	Impact Factor/ Citation Index	National/ International
1	Introduction to the Wi-max and Its Related Issues and Its Comparison with Wi-Fi,	International Journal of P2P Network Trends and Technology (IJPTT).	ISSN: 2249-2615	pp. 1221 - 1227.	International
2	“Power Transmission through Wireless Medium”	international journal of engineering trends and technology,	ISSN: 2231-5381	2013; 4(5) 1334–1336.	International
3	“Spectrum Sensing Techniques and Issues in Cognitive Radio”	international journal of engineering trends and technology	ISSN: 2231-5381	2013; 4(4) 695–699.	International
4	Spectrum Sharing In Cognitive Radio Networks	international journal of engineering trends and technology	ISSN: 2231-5381	V4(4):1172-1175 Apr 2013.	International
5	“Cognitive Radio in Public Safety and Emergency Applications”	international journal of engineering trends and technology	ISSN: 2231-5381	Volume4, Issue4- April 2013, Page 880	International
6	“Signal Jamming and its Modern Applications”	International Journal of	ISSN: 2319-7064	Volume 2 Issue 4, April 2013	International

		Science and Research (IJSR)			
7	“Direct Signalling for the CREW inside Loco Motive”	international journal of engineering trends and technology	ISSN: 2231-5381	Volume4 Issue4- April 2013 Page 991	International

5.8. Papers presented at National / International Journals :

S.No	Title of the Paper	Names of the Conference/ Seminars	National/ International	Period
1	“Hardware and software co-design issues in h.264 decoder”	National Conference on Advancements in Embedded Systems and Sensor Networks (AESSN-2015) ,IJSSG, Page 283, ISSN: 2348 - 8387	National	May-2015

5.9. Sponsored research Projects:

S.No	Title	Agency	Period	Grant amount	Ongoing / Completed

5.10 Consultancy Projects:

S.No	Title	Agency	Period	Sanctioned Amount	Ongoing / Completed

6. Awards / Honors received:

7. Motto: