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Dr. Ravi Hosamani

Qualification:

- Ph.D(ECE) **Machine Learning Algorithms for Improved CSI Estimation in Next-generation Wireless Networks**, *Visvesvaraya Technological University(VTU), Belagavi*, 2025
- M.Tech **VLSI Design and Embedded Systems**, *Sri.Jayachamaraj College of Engineering, Mysore*, 2010
- BE **Electronics and Communication Engg.**, *PDA College of Engineering, Kalaburagi*, 2006

Experience

- Assistant Professor **Working as Assistant Professor and HoD**, in *Dept. of Electronics and Communication Engineering, SECAB Institute of Engineering and Technology, Vijayapura* from July 2025 to till date
- Assistant Professor **Worked as Assistant Professor**, in *Dept. of Electronics and Communication Engineering, K.L.E. Institute of Technology, Hubballi* from July 2010 to June 2025
- Testing Engineer **Worked as software testing Eng. and QA**, in *Spectramind Solutions Pvt. Ltd., Hyderabad* from 2006 to 2008

Administrative & Outreach Leadership

Institutional
Leadership

Academic Coordination

- Worked as **VTU Exam Coordinator**, overseeing digital valuation, QPDS and e-Shikshana initiatives
- Served as **NBA/ISO Coordinator**, ensuring compliance with accreditation standards

Faculty & Student Development

- Organized **Faculty Development Programs (FDPs)** and **Student Development Programs (SDPs)**
- Coordinated **Department Forum (PHOENIX)** and **National Tech Fest (ADVI-TIYA)**

Professional
& Community
Engagement

Technical Outreach

Organized **20+ national/international webinars**, Cadence VLSI workshops, and conferences (served as *Publication Chair*)

Social Impact

Spearheaded **blood donation drives** and **COVID-19 vaccination camps**

Conducted sustainability awareness programs for **250+ high school students** (plastic reduction, internet safety and)

Technical Skills:

Programming

Verilog, C, Assembly

Tools

MATLAB, Cadence, Python, Octave

Areas of Interest:

Signal Processing, Communication Systems, Machine Learning, Deep Learning, VLSI

Leadership & Awards

Professional
Leadership

IEEE Roles

- **Execom Member**, IEEE Bangalore Section.
- **Execom Member**, IEEE Bangalore Section AESS & SPS Chapters 2025,2026.
- **Counselor**, SIET IEEE Student Branch 2025,2026
- **Chair** (2024) and **Secretary** (2022), IEEE North Karnataka Subsection
- **Execom Member**, IEEE Bangalore Section AESS & SPS Chapters 2025.
- **Conference Chair**, IEEE NKCon 2024,2025; **General Chair**, IEEE BHTC 2025
- **Secretary**, IEEE SIGHT Bangalore Section (2022)
- **Execom Member**, IEEE Bangalore Section (2022-2023)
- **Counselor**, KLEIT IEEE Student Branch (2015-2021)

Academic Leadership

- Organized **20+ national/international webinars** and technical talks
- Served as **Publication Chair** for multiple international conferences
- Led **IEEE YESIST12** international project competition (Innovation Challenge Track Co-Chair, 2024)

Awards

- **Best Teacher Award** 2020 (IEEE Bangalore Section)
- **Grand Entry Award** 2022 (IEEE YESIST12 International Competition)
- **Best IEEE Student Branch** (2015, 2020) as Branch Counselor
- **KSCST Best Project** 2016-17 for graphene-based biomedical sensor
- **Best Volunteer Award** 2021 (IEEE North Karnataka Subsection)
- **VLSI Design Conference Faculty Fellowship** (2014, 2020)

Courses Taught:

- Basic Electronics
- Digital Signal Processing
- Information Theory and Coding
- Fundamentals of CMOS VLSI
- Digital Switching System
- Microwave and Radar
- LTE
- Microprocessor
- Control System
- Wireless Communication

Projects Guided:

Guided more than 100+ projects. Creative projects are done at the pre-final year and the final year level of the students in the areas of VLSI, DNN, agriculture, healthcare, and biomedical applications.

- Small Scale Automatic Jaggery Production(AJP) System development in collaboration with the University of Agricultural Sciences, Dharwad
- KSCST Best Project of the Year 2016-17 for Fabrication of graphene with actuate carbon made from cow dung as electrode material for electrochemical sensor- A Biomedical Application.
- Solar-Based Temperature Controlled Fruit Drying System development in collaboration with the University of Agricultural Sciences, Dharwad
- E- Trolley For Shopping Malls (Selected for Texas Instruments India Student Project Competition)

Papers Published

- Ravi Hosamani, Yerriswamy T., Chetan. V. Sagarnal and Kiran. R. Patil, "Channel Estimation in Multi-Antenna Cellular Systems: Taguchi Optimization Techniques," 2025 3rd International Conference on Integrated Circuits and Communication Systems (ICICACS), Raichur, India, 2025, pp. 1-7, .(Scopus Indexed)
- Ravi Hosamani, Yerriswamy T., "Enhancing Performance in Physical Activity Monitoring: Leveraging Wi-Fi Channel State Information (CSI)," *SN Computer Science*, 2024. DOI, (Scopus Indexed, Q1)

- Ravi Hosamani, Yerriswamy T., "Channel Estimation in MIMO OFDM Systems with Tapped Delay Line Model," *International Journal of Computer Networks & Communications (IJCNC)*, Vol. 15, No. 6, Nov. 2023. DOI (Scopus Indexed, Q4)
- Ravi Hosamani, Yerriswamy T., "CSI based Performance Investigation of Single Cell - Multi-user MaMIMO System," *IEEE ASIANCON 2022*, Ravet, India. DOI (Scopus Indexed)
- Ravi Hosamani, Yerriswamy T., "Deep Learning-Based CSI Estimation Using Synthetic Dataset," *IEEE ICDCECE 2022*, Ballari, India. DOI (Scopus Indexed)
- Ravi Hosamani, Yerriswamy T., "Multiplier Design for Digital Modulator for Wireless Communication Applications," *IEEE I2CT 2023*, Pune, Maharashtra, India. (Scopus Indexed)
- Ravi Hosamani, Praveen Kumar Y. G., Kariyappa B. S., M. Z. Kurian, "Realization of Power and Area Efficient 16-bit Equality Comparator Using m-GDI Technology," *IEEE MysuruCon 2021*, pp. 677–681. DOI (Scopus Indexed)
- Ravi Hosamani, Devamane S., Yerriswamy T., Bagalwadi S., "Deep Learning Based Human to Human Interaction Detection Using Wireless Fidelity," *DiTTEt 2021*, Springer AISC, Vol. 1410. DOI (Scopus Indexed)
- Ravi Hosamani, Chetan Sagarnal, Shridhar B. Devamane, Trupthi Rao, "Deep Learning Approaches for COVID-19 Diagnosis," *4th Int'l Conf. on Informatics & Data-Driven Medicine*, 2021, Valencia. (Scopus Indexed)
- Ravi Hosamani, Rakesh H. M., Rakesh B. Shettar, Praveen Kumar Y. G., "Realization of 8-Bit Pipelined RISC Processor Using Verilog HDL," *IRJET*, Vol. 8, Issue 9, 2021, pp. 1794–1797.
- Ravi Hosamani, Anusha Bha, Anusha Kalasur, "Design and Analysis of 1-Bit SRAM," *IJERT*, Vol. 9, Issue 9, 2020, pp. 220–224.
- Ravi Hosamani, Karuna C. Gull, Susen Naik, "Innovative Teaching to Improve the Learning Process: An Experience," *JETIR*, Vol. 7, Issue 2, Feb. 2020.
- Ravi Hosamani, Yerriswamy T., Rajeswari Itagi, "Performance of Channel Estimation for Large Scale MIMO Systems," *32nd WCASET 2020*, IFERP. ISBN: 978-93-90214-08-2.
- Ravi Hosamani, Ravi Bagade, "Arduino Based Water Billing System for Domestic Purpose," *IJMTER*, Vol. 2, Issue 7, July 2015.
- Ravi Hosamani, Ashwini S. Karne, "Design and Implementation of Hamming Code on FPGA Using Verilog," *IJEAT*, Vol. 4, Issue 2, Dec. 2014.
- Ravi Hosamani, Dr. Satish R. Desai, "Small Scale Automatic Jaggery Production (AJP) System," *IJMTER*, Vol. 1, Issue 6, Dec. 2014.
- Ravi Hosamani, Dr. Satish R. Desai, "Solar Based Temperature Controlled Fruit Drying System," *IJRAIE*, Vol. 1, Issue 2, Sept. 2013.
- Ravi Hosamani, B. A. Sujathakumari, "Wireless Weather Data Logger Using SD Card with ARM Controller," *IJPCSC*, Vol. 2, No. 3, Apr.–Jun. 2010.

Workshop:

- Participated and completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on “Artificial Intelligence” from 2021-1-4 to 2021-1-8 at Dr. Ambedkar Institute of Technology.
- Participated and completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on “ Cognitive Radio, Antennas and Millimeter wave Communication” from 2021-06-07 to 2021-06-11 at Saranathan College of Engineering.
- Participated and completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on “Devices for Modern Wireless Communication System” from 20/09/2021 to 24/09/2021 at School of Studies in Engineering and Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur.
- AICTE Training And Learning (ATAL) Academy Online Elementary FDP on “Recent Trends and Advancements in ANN and Deep learning for Real Time Applications” from 20/12/2021 to 24/12/2021 at Rungta College of Engineering and Technology, Bilai.
- Participated and completed successfully AICTE Training and Learning (ATAL) Academy Online Elementary FDP on “ Sparse Signal Processing and its Applications” from 18/10/2021 to 22/10/2021 at National Institute of Technology, Andhra Pradesh.
- Attended the workshop on Introduction to PBL at KLE Tech University, Hubballi, 21st Nov 2019.
- Attended FDP on “Digital Signal Processing” at KLE Tech University Hubballi from 15th to 20th July 2019.
- Attended FDP on “Computational Linear Algebra” at SJCE Mysore from 7th to 11th Dec 2016

Professional Membership:

- Senior Member, Institute of Electrical Engineers (IEEE USA)
- Life Indian Society for Technical Education (ISTE India)
- Life member Institute of Engineers (IEI India)
- International Association of Engineers (IAENG)