Dr. Ganesh K
M.Tech(Digital Electronics), Ph.D
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Professional Summary

Faculty with Doctorate degree in Electronics and Communication Engineering having over 13 years of professional experience with passion for teaching to create next generation technocrats. With strong academic background and passion to teach and utilize expert knowledge, potential skills in innovative teaching learning methodology, including project and content based instruction. Have strong industry connections for academic collaborations. Conducted many workshops on cutting edge technologies and delivered talks on national and international platforms.

Work Experience

Total professional experience: 13 Years

07/08/2014 to till date

Assistant Professor, Department of Electronics & Communication, Bapuji Institute of Engineering and Technology, Davanagere

23/07/2010 to 26/06/2014

Assistant Professor in Department of Electronics & Communication Engineering, KLE Institute of Technology, Hubballi

July 2007 to July 2008

Trainee Multimedia software engineer, Dhanyath Infosystems, Bengaluru

Positions held

- Appointed as **Board of Examiner(BoE)** for Electronics and Communication Engineering 2022
- Working as **Valuation Coordinator** for VTU Valuation Center, BIET, Davanagere

Education

2022 – Ph.D, Visvesvaraya Technological University, Belagavi,

An approach of Video Quality Assessment for Video Processing Systems, Department of Electronics & Communication Engineering, Vidyavardhaka College of Engineering, Mysuru

2010 – M. Tech, Digital Electronics, B. V. Bhoomaraddi College of Engineering, Hubballi

2007, B. E. Electronics & Communication Engineering , G. M. Institute of Technology, Davanagere

Taught Courses:

• Digital Image Processing

• Information Theory and Coding

• Electronic Devices

• Digital Signal Processing

• DSP algorithms and Architecture

• Basic Signal Processing

• Digital Electronics

• Electronic Instrumentation

• Hardware Descriptions Language

• Basic Electronics

Publications

1. Ganesh K, Chandrashekar M. Patil, "Performance Analysis of CWSSIM Video Quality Metric with Different Window Size on LIVE Database", International Conference on Current Trends in Computer, Electrical, Electronics and Communication (ICCTCEEC-2017), pp26-266

2. Ganesh K, Chandrashekar M. Patil, "Frequent Itemset based Model for Video Quality Assessment", ISSN 0011-9342, Issue 8, pp 439-449

3. Ganesh K, Chandrashekar M. Patil, Vishwanath Muddi, "A Machine Learning based approach for framework of objective video quality assessment system", ISSN 2278-3091, Vol 10, No 1, Jan-Feb 2021, doi 10.30534/ijatcse/2021/48102021

4. Ganesh K, Chandrashekar M. Patil, "Video Quality Assessment Based on Monte Carlo Feature Selection Technique", ISSN: 2348-5477 Volume -8, Year-(2021) Issue-04 Article Id:- KIJSET 2021/V-8/ISS-4/A01

5. Ganesh K, Chandrashekar M. Patil, "Video Quality Assessment based on Z-Score", ISSN: 2395-5252, Volume 3, Issue 11 Nov 2021, pp: 902-906

6. Ganesh K, Chandrashekar M. Patil, "Video Quality Assessment Using Optimization Algorithms"LHJ5823/12-03180. ISSN 0974-5823. Accepted for publication in Dec 2021 issue.

7. Ujvala Patil, Uma Mudenagudi, Ganesh K, "Image Fusion Frame Work" in Communications in Computer and Information Science Volume 142, 2011, pp 653-657

Proposals submitted

Submitted proposal entitled **Heritage in Virtual Reality** to Kartnataka State Science and Technology (KSCST) for Faculty Project Proposal(FPP) in 2022

Submitted **AICTE MODROBS proposal** for setting up **Artificial Intelligence and ML Integrated IOT lab** at Dept of E&CE, BIET, Davanagere in association with Dr. G. S. Sunitha in 2020

Patents

Filed and published Indian patent **DESIGN AND IMPLEMENTATION OF IOT AND DATA ANALYTICS BASED SMART VILLAGE**, Application No – 202241051024

Filed and published Indian patent **DESIGN AND DEVELOPMENT OF AN IOT BASED SMART BANK LOCKER SYSTEM**, Application No - 202241075388

Experience

Consultant (Embedded Engineer)

AltiLogic Technologies Pvt. Ltd, Bengaluru

From Jan 2018 – Present (3 Years 10 Months)

Contributed in **requirement elicitation** for developing a product called **Prayogeek Uno – A portable electronics lab.** Have set up the curriculum using this board for students during Covid lockdown for effective practical learning sessions when they were away from physical lab. Also involved in developing **robotic modules** as part of STEM education for kids.

Consultant (Embedded Engineer)

AltiLogic Technologies Pvt. Ltd

From Jan 2018 – Present (3 Years 10 Months)

Contributed in **requirement elicitation** for developing a product called **Prayogeek Uno – A portable electronics lab.** Have set up the curriculum using this board for students during Covid lockdown for effective practical learning sessions when they were away from physical lab.

Certifications

- Obtained **MATLAB LinkedIn** Skill Assessment certification
- Obtained **A+** grade in **Infosys Ltd** Faculty Enablement Program on **"Python Programming through INFYTQ Platform"** conducted in virtual mode through webinar from 6th to 13th July 2020

Recognitions

Delivered invited talk on 10th April 2022 in **International summit on OBE(Outcome Based Education) organized by IN4OBE**, founded by William Spady, Father of OBE. Addressed on topic **"Designing for Effective Learning Using Digital Technology"** with theme Transformational Education Using Technology – Challenges and Benefits in Track 2 – Computing, Engineering and Technology

Books

- Written Kannada book entitled **"Electronics Guru"** for **Visvesvaraya Technological University Janapriya Tantrika Pustaka Maale, 2022**
- Written own Kannada poem collection book **"Kampana"** in 2006

Workshops/Training/Talks

- Organized and hosted the Inauguration of **"Skill Development Workshop"** in online mode. Chief guest- Mr. Kiran G S. Guests- Mr. Bharat Bhatta, Mr. Chetan Prasad, President- Dr. G. S. Sunitha G. S.
- Coordinated **"Prayogeek skill development workshop"** for Super Numerary Quota (SNQ) students of the department in association with the Head of the Department in Dec 2020.
- Organized webinar on **"Skills and Opportunities in VLSI"** on 22nd May 2021, Saturday at 11.30am-12.30pm for 8th semester students of Dept of E&CE, BIET. Session by Shri Vaibhav Rajpurohit, Senior Lead Engineer, Qualcomm was arranged.
- Organized **"Opportunities in Salesforce"** webinar for final year students of the department on 31st May 2021 in association with Head of the Department. Session by Mr. Chetan, Mr. Karthik, Ms. Garima
- Conducted two hands on session in **AICTE Training And Learning (ATAL) Academy** Sponsored one week **FDP On "Recent Trends in IoTs and Cloud Computing"** with topic **"Interfacing IoTs on to cloud computing with case studies"**
- Delivered a technical talk on **"Technical Education in Higher Secondary Level for Rural Development"** in **Phase I – AICTE Short Term Training**

Program(STTP) organized by the Department of Humanities, Govt. Engineering College, Hasana on 28th Nov 2020

- Delivered a technical talk on **"Technical Education in Higher Secondary Level for Rural Development"** in **Phase II – AICTE Short Term Training Program(STTP**) organized by the Department of Humanities, Govt. Engineering College, Hasana on 7th Dec 2020

- Delivered an invited talk **"Karnataka's Rich Heritage and Engineers Role in Promoting and Preserving"** for Virtual Student Induction Program organized by Don Bosco Institute of Technology, Bengaluru on 14th Dec 2020

- Delivered a technical talk on **"STEM Education for Rural Development Through Technical Education"** in **Phase II – AICTE Short Term Training Program(STTP)** organized by the Department of Humanities, Govt. Engineering College, Hasana on 10th Dec 2020

- Delivered two sessions on **"Electronics and Programming using Arduino"** for high school teachers who applied for **ATAL Tinkering Lab on 21st Jan 2021 and 22nd Jan 2021** at **Kendriya Vidyalaya, Davanagere**, organized by District Institute for Education and Training(DIET)

- Delivered webinar talk on **"Empowering Rural Communities – Opportunities and Challenges"** organized by Rural Development Special Interest Group(SIG), Internet Society

- Delivered a talk on **"Internet – Can it become a boon for Rural Indians"** at Kavya Mantapa, Vidyanagar, Davanagere organized by Grantha Saraswati.

- Delivered a Webinar talk on **"Challenges in Image Quality Assessment"** On 2nd July 2020 at 10am to 12.15pm, hosted by PES Institute of Technology and Management, Shivamogga

- Resource person for two days workshop on **"Fundamentals of Digital Image Processing and its Application using MATLAB"** between 26th and 27th Oct 2018 at Dept of Computer Science and Engineering, Jain Institute of Technology, Davanagere

- Resource person for **Internet of Things(IOT) workshop** at PES College of Engineering, Mandya, conducted by Free Software Movement Karnataka(FSMK), from 19th Jan 2019 to 24th Jan 2019.

- Delivered a talk as **chief guest** for inaugural of the function **"WIZONICS 2018-19"** at Electronics and Communication department at GM institute of Technology, Davanagere on 4th Sept 2018

- Resource person for one week workshop on **"Image Processing using MATLAB with Hands on Experience"** for final year students of Telecommunication Engineering at Sri Siddartha Institute of Technology, Tumakuru, Davanagere, during 8th to 12th January 2018

- Resource person for two days workshop on **"Basics of Image Processing Using MATLAB**" organized by Dept of Electronics and Telecommunication Engineering, College of Engineering, Osmanabad, Maharashtra on 18th and 19th Aug 2017

- Resource person for two days workshop on **Basics of Image Processing Using MATLAB** organized by Dept of Computer Science & Engineering, College of Engineering, Osmanabad, Maharashtra on 16th and 17th Aug 2017

- Resource person for two days student development program for 5th semester students on **"Introductory Workshop on MATLAB and Signal Processing"**, organized by Dept. of E&CE, BIET, Davanagere on 3rd and 4th July 2015

FDPs, STTPs, Workshops, Symposium, Refresher or Orientation course attended

- Attended **IEEE Authorship and Open Access Symposium: Tips and Best Practices to Get Published from IEEE Editors** on 30th Aug 2022

- Attended **Education as a Sustainable Development Goal: A Research Perspective** organized by IEEE Computer society on 10th Aug 2022

- Attended FDP on **Embarking On Open Source Software in an Engineering & Research Journey** organized by BIET in association with VTU FOSS Group, 19th to 24th April 2022.

- Attended webinar **STEM Education & IEEE Pre-University Educational Resources** on 23rd April 2022

- Attended **IEEE Conference organizers Education Workshop** (COEW-2022), jointly organized by IEEE Bangalore Section (BS), IEEE Mysore Subsection (MYSS), IEEE Mangalore Subsection (MSS) and IEEE North Karnataka Subsection (NKSS), on 10th April 2022

- Attended webinar **Pathways to Academia: Publishing your Research - Advice from IEEE Editors** organized by IEEE Virtual events on 6th April 2022

- Attended webinar on **Technology Innovation and Implementation in Agriculture Industry** organized by CIIE Forum on 17th July 2021
- Attended **Design Thinking for Engineers** organized by CIIE Forum on 24th July 2021
- Attended ATAL FDP on **Deep Learning For Audio And Speech Processing** from 26th July 2021 to 30th July 2021. Successfully completed with certification.
- Attended webinar on **Artificial Intelligence for Real Time Analysis** on 31st July 2021
- Attended two day workshop **NeuroAI – Symposium at the interface of Neuroscience and Data Science**, at Infosys campus, Bengaluru from 2nd to 3rd Aug 2019.
- Attended IEEE Bengaluru Webinar – Learning series "**Art and Challenges of Writing Papers for IEEE transactions**" on June 8th 2020
- Attended IEEE Bengaluru Webinar – Learning series **"The future of World Electronics and Possible Roles India Can Play"** on June 8th 2020
- Attended IEEE Bengaluru Webinar – Learning series **"IEEE Collabratec: Uniting IEEE Global Technology Community"** on June 8th 2020
- Lead a group of 21 students to attend **IESA Vision Summit 2018** organized by IESA at Hotel Leela Palace, on 28th Feb 2018
- Attended **India Electronics Week**, organized by **Electronics for You Group** on 4th March 2017 at Bengaluru International Exhibition Center(BIEC)
- Attended **DEFTRONICS 2016** – Defense Electronics symposium organized by **India Electronics and Semiconductor Association(IESA)** at Hotel Ritz Carlton, Bengaluru on 4th and 5th Aug 2016
- Participated in VTU-VGST sponsored one week workshop on **"Advances in Power Electronics and Drives"** organized by Department of Electrical and Electronics, UBDTCE, Davangere from 5th to 8th June 2015.
- Attended workshop **"Medical Cybernetics"** sponsored by VGST, GoK organized by PDA College of Engineering, Gulbarga in Nov 2012
- Attended workshop **"Digital Design using FPGA"** organized by BVBCET on 9th Feb, 2008

Student Outreach Activities and Technical Visits

- Organized the presentation and exhibition of student project student project **"Animal intrusion detection and alerting system for farm protection"** for social outreach at Krushi Mela 2022, Davanagere, Karnataka from 18th Feb to 20th Feb 2022
- Organized the technical visit of students and lead the group to **India Electronics Week**, organized by **Electronics for You Group** on 4th March 2017

- Coordinated, organized and lead a group of 78 students of 5th semester E&CE, in association with fellow faculty members to visit **All India Radio Station, Dharawad and Hi-Tech Electro Components Pvt. Ltd**, a capacitor manufacturing company in Hubballi on 4th and 5th 2016
- Lead the team of students representing Dept of E&CE, BIET for participation in **Smart India Hackathon 2018 at Kanpur**

- Lead the group of students to attend **IESA(India Electronics & Semiconductor Association) Vision Summit 2018** organized by IESA at Hotel Leela Palace on 28th Feb 2018
- Lead the group of 8th semester students for the **Technical visit to BSNL Telephone Exchange**, Davangere on 9th and 10th April 2015.
- Lead a group of students for the participation in India Electronics & Semiconductor Association(IESA) Vision Summit at Leela Palace in 2017

SCIENTIFIC & PROFESSIONAL SOCIETIES MEMBERSHIP

- Member, IEEE
- Member, IEEE Council on RFID
- Member, IEEE Sensor Council
- Member, IEEE Young Professionals
- Member, Big Data Community, IEEE
- Member, Intelligent Informatics, IEEE Computer Society Technical Committee
- Member, Internet Society
- Member, Internet Society Rural Development Special Interest Group(SIG)
- Member, International Association of Engineers (IAENG)
- Member, The Society of Digital Information and Wireless Communications(SDIWC)

- Member, European Alliance for Innovation (EAI)

Achievements

- Student project **"Animal intrusion detection and alerting system for farm protection"** was selected for institutional funding and exhibited at Krushi Mela 2022, Davanagere.

- Student Project under my guidance entitled **"An automatic SHRUTI detection in Hindusthani and Carnatic Music to help novice singers"** was selected to prestigious national level Texas Instruments Analog Design Contest Innovation Challenge 2014.

- The paper entitled **"A new quality metric for pyramid image fusion"** was submitted in National conference, **NICS 2010** organized by Manipal Centre for Information Science held at Manipal in April 2010, got **1ˢᵗ prize** under Healthcare and IT category.

- B.E Final year project entitled **"Performance evaluation of advanced speech codecs used in wireless communication"** was sponsored by **KSCST, IISc, Bangalore** and selected for **"Seminar cum exhibition"** in State level project exhibition held at Belgaum in July 2007.

Accreditation related coordination

Coordinated NBA Criteria 5 – Faculty Information and Contribution

Coordinated NAAC Criteria 3 - Research, Innovations & Extension

Projects of Social Relevance: Founded e-Aavishkaar Foundation in 2014 for sustainable development through education. Conducted workshops for students on electronics and robotics. It mainly concentrates on educating K12 students about STEM (Science, Technology, Engineering and Mathematics) skills and reached 6000+ students across Karnataka covering 4 districts.

Extra Curricular Activities

- Founded BVB Kananada balaga in 2009. Organized and coordinated many cultural and literary events in the college.

- Lead the team of fellow M.Tech students, Kannada balaga members to Gadag Sahitya Sammelana. An information center was opened and promoted tourism during Feb 2010.