

Brief Profile

Dr. POORNIMA G R

Professor & Dean Academics,

Dept. of E&CE

SVCE, Bangalore



Qualification:	B.E (E&C), M.Tech. (ELN), Ph.D (VLSI)																
Details of Educational Qualification :																	
<table border="1"><thead><tr><th>Course</th><th>School/College/ University</th><th>Year of Passing</th></tr></thead><tbody><tr><td>Ph.D (Video & Image Processing)</td><td>Visvesvaraya Technological University</td><td>2019</td></tr><tr><td>M.Tech (Electronics)</td><td>Visvesvaraya Technological University</td><td>2001</td></tr><tr><td>BE (E&C)</td><td>Bangalore University</td><td>1997</td></tr></tbody></table>	Course	School/College/ University	Year of Passing	Ph.D (Video & Image Processing)	Visvesvaraya Technological University	2019	M.Tech (Electronics)	Visvesvaraya Technological University	2001	BE (E&C)	Bangalore University	1997					
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Teaching Experience:																	
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Publications:	<ol style="list-style-type: none">1. International Journals :062. IEEE International Conferences :243. National Conferences : 044. National Seminars : 065. Invited Lectures : 05																
Professional Bodies Memberships:	<ol style="list-style-type: none">1. MIETE2. IEI-M-150776-63. MISTE-LM417284. IEEE membership5. MMATMAJ-2008																
Research & Development	Focus on development of new algorithms and Novel Architectures for the MPEG-4 part 10 Decoder.																

Personal Achievements / Credentials:

1. Received fund of Rs.6,000/- from KSCST, Bengaluru for the implementation of project “DETECTING A TWITTER CYBERBULLYING USING MACHINE LEARNING ” during the ACY – 2021-22
2. Received fund of Rs. 5,000/- from VTU, Belagavi for the implementation of project “Leaf Disease detection system ” during the ACY – 2021-22
3. Received fund of Rs.5,000/- from KSCST, Bengaluru for the implementation of project “ Covid -19 based Smart Helmet” during the ACY – 2020-21
4. Received fund of 6,000/- from KSCST, Bengaluru for the implementation of project “TIMING SYNCHRONISATION TECHNIQUE WITH A SYMBOL RATE FOR WIRELESS” during the ACY – 2020-21
5. Received fund of 6,000/- from KSCST, Bengaluru for the implementation of project SIGNAL DETECTION FOR BATTERYLESS BACKSCATTERING SYSTEMS WITH RFID ANTENNA TAGS, OFDM SYSTEM WITH LOW POWER during the ACY – 2020-21
6. Won third prize in KSTA sponsored “symposium cum project exhibition on Recent advances in Engineering Sciences for the project titled **Smart Vehicle Headlight Automation With efficient energy Management system**”, at SJCIT with a cash prize.
7. Amount of Rs. **8000/-** was funded by **Soch Solar Systems LLP** to Implement “ **Solar Automatic Photovoltaic Water Pumping System** ”.
8. Co Investigator for DST project fund of “**2.62 crores** to implement “**Intelligent Off Grid System for Energy Sustainable Village**”.
9. Amount of Rs. **12,500/-** was funded by **GLOBAL VACCUM PRODUCTS** to Implement “ **P-ID Temperature Control panel for Vacuum Ovens**”.

Consultancy Activity:

1. Designed and developed **Automatic Photo voltaic solar pumping system** for Soch Solar LLT. in association with MGIRED
2. Designed and developed **PID Temperature controller panel for vacuum ovens** to Global Vacuum Products

Patents published:

1. Applied design patent during the **ACY-2022-23** application number 374707-001
2. Meter to meter, Animal intruder and fire detection intimation system for villages surrounded by the forest.- Application number : 201841043967A , Publication date : 30.11.2018
3. Grill Doors alignment to the train compartment door on the Railway platform – Application number : 201941005943, Publication Date : 22.02.2019

National level Participation:

1. Certified by AICTE sponsored Mentor mentee programme from ACY: 2020-21
2. Chattisgarh SPIU identified NBA mock visit/trainings resource person
3. Jury for Nation level ‘Smart India Hackathon, 2021, 2019’ Software Edition held on April 2021 and 2nd and 3rd March 2019

Institutional Services:

- Governing Council Member from ACY 2017-18 to 2020-21
- NBA College Coordinator till date
- Deputy MR and ISO 9001:2008 and ISO 9001: 2015 Auditor till 2016-17
- As college level Alumni coordinator till 2016-17
- As college level Time Table Coordinator
- Mentor for students
- Workshop/FDP/Conference coordinator

Books and Monographs published

1. Sunstar Exam Scanner, Sunstar Publication (Optical Fiber communications), 2017-18
2. Harbinger Series, Sanguine Publications, (Fundamentals of CMOS VLSI), 2011-12
3. Harbinger Series, Sanguine Publications, (Microcontroller), 2011-12

Resource person:

1. Resource person at SJCIT for Alumni Expert talk series at SJCIT, Chikkaballapur for the ACY-2021-22

2. Expert talk at SVCE sponsored by Karnataka Science and Technology Academy (KSTA) is organizing Two day's workshop on "Efforts at Enhancing Scientific Literacy and Awareness Programmes at Removing Superstitions among Public (Women) "
3. Resource person at SVCE for AICTE sponsored Short Term Training programme on "**Compressive sensing for 5G wireless sensor networks**" – July 13-17,2019-20
4. Resource person at SVCE for AICTE sponsored Short Term Training programme on "**Compressive sensing for 5G wireless sensor networks**" – August 5-9,2020-21
5. Delivered a talk on NBA-SAR preparations for Polytechnic Colleges at Govt. Polytechnic college for Women, Bangalore on 27/09/2019
6. Mock visit expert at Govt. Engineering College, Jagadapur, SPIU, Chattisgarh 2018-19.
7. Session chair at National conference on "Recent Trends in Electronics & Communication Engineering"- Manthana -2018,10 May 2018
8. Delivered talk on "**OBE Implementation Needs and challenges in Higher Education**", 08 May, 2018 at Sha-Shib College of Engineering, Varlakonda, Chickballapur
9. For FDP & delivered talk on "**Plagiarism issues in Technical paper Writing**", 14 & 16th Jun, 2018, SVCE, Bangalore.
10. Delivered talk on "**Out Come Based Education (OBE)**", 13 January, 2017 at SJGIT, Chickballapur.
11. For FDP & delivered talk on "**Recent Issues and Developments in wireless and optical Fibre Communication**", 14 & 16th Jan, 2016, SVCE, Bangalore.

Paper Reviewer: For 2019, 2018,2017, 2016 and 2015 IEEE International conference on Recent trends in Electronics, Information & Communication Technology, SVCE, Bangalore.

Courses Handled

Research Interests

- Low Power VLSI for Medical Applications,
- Video and Image processing for video streaming,
- LTE Communication systems
- Embedded Systems Agricultural applications

Selected Publications

- Jai Shankar K N, Poornima G R, Narayanappa C K, "COVID-19 Detection using Chest X-RAY, "COVID-19 Detection using Chest X-RAY," International Journal of Circuits, Systems and Signal Processing, Volume 16, March 28,2022
- Raveendra kumar T H Narayanappa C K Raghavendra S Poornima G R, "A Modified XGBoost Classifier Model for Detection of Seizures and Non-Seizures," Turk J Elec Eng & Comp Sci(2021)
- G R Poornima, S C Prasanna Kumar, "Efficient H.264 Decoder architecture using External Memory and Pipelining," IJEECS, Vol. 12, No. 3, pp. 995~1002, December 2018
- G R Poornima, S C Prasanna Kumar, "4x4 Luminance Intra Prediction modes for H.264/AVC," published in IJEECS, Vol. 6, Issue 7, July 2017.
- G. R. Poornima, J. L. Avinash, S. Palle, S. Santosh Kumar, K. N. Sunil Kumar and P. Rajendra Prasad, "Image Processing Based Human Pursuing Robot," 2020 International Conference on

Recent Trends on Electronics, Information, Communication & Technology (RTEICT), Bangalore, India, 2020, pp. 408-412, doi: 10.1109/RTEICT49044.2020.9315662.

- R. Gatti, J. L. Avinash, N. Nataraja, G. R. Poornima, S. Santosh Kumar and K. Sunil Kumar, "Design and Implementation of Vision Module for Visually Impaired People," 2020 International Conference on Recent Trends on Electronics, Information, Communication & Technology (RTEICT), Bangalore, India, 2020, pp. 373-377, doi: 10.1109/RTEICT49044.2020.9315645.
- P. Rajendra Prasad, J. L. Avinash, G. B. Arjun Kumar, G. R. Poornima, S. Santosh Kumar and K. Sunil Kumar, "IoT based Smart Water Quality Monitoring and Flow Control System," 2020 International Conference on Recent Trends on Electronics, Information, Communication & Technology (RTEICT), Bangalore, India, 2020, pp. 358-362, doi: 10.1109/RTEICT49044.2020.9315670.
- J. L. Avinash, K. N. Sunil Kumar, G. B. Arjun Kumar, G. R. Poornima, R. Gatti and S. Santosh Kumar, "A Wireless Sensor Network Based Precision Agriculture," 2020 International Conference on Recent Trends on Electronics, Information, Communication & Technology (RTEICT), Bangalore, India, 2020, pp. 413-417, doi: 10.1109/RTEICT49044.2020.9315578.
- G. R. Poornima, V. Harish, S. Karthik, B. S. Nagesh kumar and S. Varun Kumar, "Vehicle Headlight Automation with Smart Energy Management System," 2019 4th International Conference on Recent Trends on Electronics, Information, Communication & Technology (RTEICT), Bangalore, India, 2019, pp. 396-399, doi: 10.1109/RTEICT46194.2019.9016890
- Poornima G R et al., "Location Identification and Locking Mechanism for theft vehicle using GSM and GPS," 4 th IEEE International conference on Recent trends in Electronics, Information & Communication Technology, 19– 20 May 2019 at SVCE, Bangalore, ISBN: 978-1-5386-2440-1/18/\$31.00 ©2019 IEEE.
- Poornima G R et al ., "QoS Aware Load Balancing in Cognitive Wireless Sensor Networks using Machine Learning Concepts," presented in 3 rd IEEE International conference on Recent trends in Electronics, Information & Communication Technology, 18 – 19 May 2018 at SVCE, Bangalore, ISBN: 978-1-5386-2440-1/18/\$31.00 ©2018 IEEE.
- Poornima G R et al ., "Performance Analysis of Doubly-Fed Induction Generator Based Wind Power System" presented in 3rd IEEE International conference on Recent trends in Electronics, Information & Communication Technology, 18 – 19 May 2018 at SVCE, Bangalore, ISBN: 978-1-5386-2440- 1/18/\$31.00 ©2018 IEEE.
- Poornima G R et al ., "Solar Photovoltaic Powered Smart Garbage Monitoring System Using GSM/GPS" presented in 3rd IEEE International conference on Recent trends in Electronics, Information & Communication Technology, 18 – 19 May 2018 at SVCE, Bangalore, ISBN: 978-1-5386-2440- 1/18/\$31.00 ©2018 IEEE.

- Poornima G R et al., “Arduino Based Automated Sericulture System” presented in 3rd IEEE International conference on Recent trends in Electronics, Information & Communication Technology, 18 – 19 May 2018 at SVCE, Bangalore, ISBN: 978-1-5386-2440-1/18/\$31.00 ©2018 IEEE
- G R Poornima, S C Prasanna Kumar, Ramachandran S, “In-Loop Filter for H.264/AVC Encoder,” published <https://ieeexplore.ieee.org/document/8256974/>, ISBN: 978-1-5090-3774-9/17/\$31.00 © 2017 IEEE. (Scopus Indexed).
- G R Poornima, S C Prasanna Kumar, S Ramachandran, C K Narayanappa, “Functional Module Design For H.264 Video Decoder,” Proc. International conference on Networks, Information and Communication (ICNIC 2014), Elsevier, August 2014. ISBN: 9789351072 – 591 / 607.
- G R Poornima, S C Prasanna Kumar, “4X4 Luminance Intra Prediction modes for H.264/AVC,” presented at 3rd international conference at Chhattisgarh on 29th July 2017.
- G R Poornima, S C Prasanna Kumar, S Ramachandran, C K Narayanappa, “Functional Module Design For H.264 Video Decoder,” Proc. International conference on Networks, Information and Communication (ICNIC 2014), SVCE, Bangalore, India, July–August 2014

National Conference papers:

1. Paper entitled “Energy efficient outdoor light Monitoring and Control Architecture using embedded system” presented in Manthana-18 held on 10th May 2018 at SJCIT, Chickballapur.
2. Paper entitled “Separation of overlapping Latent Fingerprints” presented in Manthana-18 held on 10th May 2018 at SJCIT, Chickballapur.

Courses Handled

Subject(s) / Course(s) taught since joining the institute (list in the order of Semesters) @SVCE till date			SEM	No. of times taught	Theory/ Lab Project/ Elective	Needs reworking (RW) / continue (CO) / Replace (RP/ Strengthen (ST)
Sl.No.	Sub Code	Subject Name				
Under Graduate Subject(s) / Course(s) taught from August 2002 to till date @ SVCE, Bangalore						
1.	15EC33/17EC34	Digital Electronics	03	03	Theory/ Lab	CO
2.	18EC34	Digital System Design	03	04	Theory/ Lab	CO
3.	18EC35	Computer Organization & Architecture	03	01	Theory	RW
4.	06/10 ELN15/25	Basic Electronics	03	02	Theory	CO
5.	EC32/06EC32/10EC32	Electronics Circuits-I/Analog Electronic circuits	03	02	Theory/ Lab	CO
6.	EC44	Linear Integrated Circuits	04	01	Theory/ Lab	CO
7.	06EC42/10ES42	Microcontrollers	04	03	Theory/ Lab	CO,ST
8.	EC45	8085 Microprocessors	05	03	Theory/ Lab	CO,ST
9.	EC53	Transmission Lines and Waveguides	05	03	Theory	CO,ST
10.	06EC56	Fundamentals of CMOS VLSI	05	04	Theory/ Lab	RW
11.	15EC42/EC54/06EC62/10EC62	Microprocessors	05/06	07	Theory/ Lab	CO,ST
12.	EC61/06EC61	Digital Communication	06	05	Theory/ Lab	CO

13.	06EC72/10EC72	Optical Fiber Communication	07	04	Theory	CO,ST
14.	EC74	VLSI circuits	07	03	Theory/ Lab	CO
15.	EC72	Microcontrollers	07	02	Theory/ Lab	CO
Post Graduate Subject(s) / Course(s) taught from August 2002 to till date @ SVCE, Bangalore						
1.	12EC021	CMOS VLSI Design	01	01	Theory/Lab	CO
2.	12EC009	Advances in VLSI Design	02	01	Theory	CO
3.	12EC043	Low Power VLSI Design	03	01	Theory	CO
Subject(s) / Course(s) taught during April 2001 to August 2002 @ Sir MVIT, Bangalore						
1.	EC35	Electronic Instrumentation	03	01	Theory	-----
2.	EC56	Mobile Communication	05	01	Theory	-----
3.	EC74	VLSI circuits	07	01	Theory	-----
Subject(s) / Course(s) taught during August 1997 to April 1998 @ SJCIT, Bangalore						
1	ELN12/22	Basic Electronics	01/ 02	01	Theory	----

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