### Dr.BASKAR.S

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Mobile no : +91-9790198732



## "Awarded as best young scientist awardee by Government of India-DST, New Delhi."

### **OBJECTIVE**

To obtain a challenging position in the area of Electronics and strive for excellence with dedication, proactive approach, positive attitude, and passion towards the work that will fully utilize my logical and reasoning abilities in the best possible way to fulfill personal and concern goals.

## QUALIFICATIONS (STARTING FROM UNIVERSITY LEVEL)

S.No.	Degree	Institution	Year	Grade
1	PhD	Anna University, Chennai.	2019	First Class
2.	ME	SNS College of Technology, Coimbatore.	2013	First Class with University
				Rank
3.	BE	SNS College of Technology, Coimbatore.	2009	First Class
4.	HSC	P.A.Vidhya Bhavan Hr. Sec School, Karur	2005	First Class
5.	SSLC	Vivekananda Matric Hr. Sec School, Karur	2003	First Class

### EMPLOYMENT EXPERIENCE

S.No	Position	Institution	Year
1.	Project Trainee	Haider Technologies,	May-2009 to Jan-
		Coimbatore	2010
2.	Lecturer	K.Ramakrishan College	Jan-2010 to May-
		of Engineering,	2011
		Tiruchirappalli	
3.	Assistant Professor	Angel College of	Jun 2013-Dec 2015
		Engineering and	
		Technology,	
		Coimbatore	
4.	Project Associate	Haider Technologies,	Dec 2015 to Jun
		Coimbatore	2016
5.	Assistant Professor	N.S.N College of	Jun 2016-Dec 2017
		Engineering and	
		Technology,Karur	
6.	Associate Professor	Karpagam Academy of	Dec 2017-Present
		Higher Education,	
		Coimbatore	

## LIST OF PUBLICATIONS AND CONFERENCES (SCI/SCIE/SCOPUS LAST 5 YEARS ONLY WITH COMPLETE REFERENCES)

- Manogaran, G., Baskar, S., Hsu, C. H., Kadry, S. N., Sundarasekar, R., Kumar, P. M., & Muthu, B. A. (2020). FDM: Fuzzy-optimized Data Management Technique for Improving Big Data Analytics. IEEE Transactions on Fuzzy Systems. (SCI)
- Shakeel, P. M., **Baskar**, **S**., Fouad, H., Manogaran, G., Saravanan, V., & Xin, Q. (2020). Creating Collision-Free Communication in IoT with 6G Using

- Multiple Machine Access Learning Collision Avoidance Protocol. Mobile Networks and Applications, 1-12. (*SCI*)
- Shakeel, P. M., Baskar, S., Fouad, H., Manogaran, G., Saravanan, V., & Montenegro-Marin, C. E. (2020). Internet of things forensic data analysis using machine learning to identify roots of data scavenging. Future Generation Computer Systems. (SCI)
- Manogaran, G., Srivastava, G., Muthu, B. A., Baskar, S., Shakeel, P. M., Hsu, C. H., ... & Kumar, P. M. (2020). A Response-aware Traffic Offloading Scheme using Regression Machine Learning for User-Centric Large-Scale Internet of Things. IEEE Internet of Things Journal. (SCI)
- **Baskar, S.**, Shakeel, P. M., Kumar, R., Burhanuddin, M. A., & Sampath, R. (2020). A dynamic and interoperable communication framework for controlling the operations of wearable sensors in smart healthcare applications. Computer Communications, 149, 17-26. (*SCI*)
- Kumar, M. S., Dhulipala, V. S., & Baskar, S. (2020). Fuzzy unordered rule induction algorithm-based classification for reliable communication using wearable computing devices in healthcare. Journal of Ambient Intelligence and Humanized Computing, 1-12. (SCI)
- Gomathi, P., **Baskar**, S., & Shakeel, P. M.(2020) Concurrent service access and management framework for user-centric future internet of things in smart cities. (*SCI*)
- Janarthanan, R., Doss, S., & **Baskar, S.** (2020). Optimized unsupervised Deep learning assisted reconstructed coder in the on-nodule wearable sensor for Human Activity Recognition. Measurement, 108050. (*SCI*)
- Arun, K. K., Mydhili, S. K., **Baskar, S.,** & Shakeel, P. M. (2020). Fuzzy rule- based environment-aware autonomous mobile robots for actuated touring. INTELLIGENT SERVICE ROBOTICS. (*SCI*)
- Sundhari, R. M., Murali, L., Baskar, S., & Shakeel, P. M.(2020) MDRP: Message dissemination with re-route planning method for emergency vehicle information exchange. (*SCI*)
- Shakeel, P. M., & **Baskar**, S. (2020). Automatic Human Emotion Classification in Web Document Using Fuzzy Inference System

- (FIS): Human Emotion Classification. International Journal of Technology and Human Interaction (IJTHI), 16(1), 94-104. (*SCI*)
- Shakeel, P. M., Baskar, S., Sampath, R., & Jaber, M. M. (2019). Echocardiography image segmentation using feed forward artificial neural network (FFANN) with fuzzy multi-scale edge detection (FMED). International of Signal Journal and Imaging Systems Engineering, 11(5), 270-278.(SCI)
- Mydhili, S. K., Periyanayagi, S., Baskar, S., Shakeel, P. M., & Hariharan, P. R. (2019). Machine learning based multi scale parallel K-means++ clustering for cloud assisted internet of things. Peer-to-Peer Networking and Applications, 1-13.(SCI)
- Dhote, S., Vichoray, C., Pais, R., **Baskar, S.**, & Shakeel, P. M. (2019). Hybrid geometric sampling and AdaBoost based deep learning approach for data imbalance in E-commerce. Electronic Commerce Research, 1-16.(*SCI*)
- Sundarasekar, R., Shakee, P. M., Baskar, S., Kadry, S., Mastorakis, G., Mavromoustakis, C. X., & Vivekananda, G. N. (2019). Adaptive Energy Aware Quality of Service for Reliable Data Transfer in Under Water Acoustic Sensor Networks. IEEE Access. (SCI)
- Manogaran, G., Shakeel, P. M., Fouad, H., Nam, Y., Baskar, S., Chilamkurti, N., & Sundarasekar, R. (2019). Wearable IoT Smart-Log Patch: An Edge Computing-Based Bayesian Deep Learning Network System for Multi Access Physical Monitoring System. Sensors, 19(13), 3030. (SCI)
- **Baskar**, S., Periyanayagi, S., Shakeel, P. M., & Dhulipala, V. S. (2019). An Energy persistent Range-dependent Regulated Transmission Communication Model for Vehicular Network Applications. *Computer Networks*. (*SCI*)
- **Baskar**, S., Dhulipala, V. S., Shakeel, P. M., Sridhar, K. P., & Kumar, R. (2019). Hybrid fuzzy based spearman rank correlation for cranial nerve palsy detection in MIoT environment. *Health and Technology*, 1-12. (*SCIE*)
- Shakeel, P. M., Baskar, S., & Selvakumar, S. (2019). Retrieving Multiple Patient Information by Using the Virtual MIMO and Path Beacon in Wireless Body Area Network. Wireless Personal Communications, 1-12.(SCI)
- Manogaran, G., **Baskar, S.**, Shakeel, P. M., Chilamkurti, N., & Kumar, R. (2019). Analytics in real time surveillance video using two-bit transform

- accelerative regressive frame check. Multimedia Tools and Applications, 1-18.(SCIE)
- Gomathi, P., Baskar, S., Shakeel, M. P., & Dhulipala, S. V. (2019).
   Numerical Function Optimization in Brain Tumor Regions Using Reconfigured Multi-Objective Bat Optimization Algorithm. Journal of Medical Imaging and Health Informatics, 9(3), 482-489. (SCI)
- Gomathi, P., Baskar, S., Shakeel, P. M., & Dhulipala, V. S. (2019).
   Identifying brain abnormalities from electroencephalogram using evolutionary gravitational neocognitron neural network. Multimedia Tools and Applications, 1-20. (SCI)
- Kirubakaran, J., Venkatesan, G. P., Baskar, S., Kumaresan, M., & Annamalai,
   S. (2019). Prediction of cirrhosis disease from radiologist liver medical image using hybrid coupled dictionary pairs on longitudinal domain approach. Multimedia Tools and Applications, 1-19. (SCI)
- Shakeel, P. M., Tobely, T. E. E., Al-Feel, H., Manogaran, G., & Baskar, S. (2019). Neural network based brain tumor detection using wireless infrared imaging sensor. IEEE Access, 7, 5577-5588. (SCI)
- Shakeel, P. M., **Baskar, S.,** Dhulipala, V. S., & Jaber, M. M. (2018). Cloud based framework for diagnosis of diabetes mellitus using K-means clustering. Health information science and systems, 6(1), 16. (*SCI*)
- Baskar, S., & Dhulipala, V. S. (2018). Collaboration of Trusted Node and QoS Based Energy Multi Path Routing Protocol for Vehicular Ad Hoc Networks. Wireless Personal Communications, 103(4), 2833-2842. (SCI)
- Shakeel, P. M., **Baskar, S.,** Dhulipala, V. S., Mishra, S., & Jaber, M. M. (2018). Maintaining security and privacy in health care system using learning based deep-Q-networks. Journal of medical systems, 42(10), 186. (*SCI*)
- **Baskar, S.,** & Dhulipala, V. R. (2018). Implementation of Elliptical Curve Point Multiplication Over Galois Field (GF (p)) in 45 Nanometer Technologies. Sensor Letters, 16(8), 632-641.(*SCOPUS*)
- **Baskar**, **S.**, & Dhulipala, V. R. (2018). Biomedical rehabilitation: data error detection and correction using two-dimensional linear feedback shift register based cyclic redundancy check. Journal of Medical Imaging and Health Informatics, 8(4), 805-808. (*SCIE*)

- Baskar, S., & Dhulipala, V. R. (2018). M-CRAFT-modified multiplier algorithm to reduce overhead in fault tolerance algorithm in wireless sensor networks. Journal of Computational and Theoretical Nanoscience, 15(4), 1395-1401. (SCOPUS)
- Sridhar, K. P., Baskar, S., Shakeel, P. M., & Dhulipala, V. S. (2018).
   Developing brain abnormality recognize system using multi-objective pattern producing neural network. Journal of Ambient Intelligence and Humanized Computing, 1-9. (SCI)
- Baskar, S., & Dhulipala, V. S. (2018). Secure and compact implementation of optimized Montgomery multiplier based elliptic curve cryptography on FPGA with road vehicular traffic collecting protocol for VANET application. International Journal of Heavy Vehicle Systems, 25(3-4), 485-497. (SCI)
- Gautami, A., Priya, S., Mythili, S., & Baskar, S. (2018). DESIGN AND IMPLEMENTATION OF CORRUGATED CIRCULAR LOOP ANTENNAS IN WIRELESS POWER TRANSFER TECHNOLOGY. IIOAB JOURNAL, 9, 26-29. (ESCI)
- Priya, S., Kumar, R. S., Prabha, R., & Baskar, S. (2018). OPTIMIZED DIRECT METHOD ROUTING FOR CACHE MEMORY IN RISC ARCHITECTURE. IIOAB JOURNAL, 9, 30-35. (ESCI)
- Hadimani, H. C., Latte, M. V., Tejomurthy, P. H. S., Dhulipala, V. S., & Baskar, S. (2016, February). Optimized mathematical model for cell receivers running in spatially problematic multi path channels for wireless systems in smart antennas. In 2016 International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS) (pp. 1-7). IEEE. (SCOPUS)
- **Baskar, S.,** & Dhulipala, V. R. (2016). Comparative analysis on fault tolerant techniques for memory cells in wireless sensor devices. Asian Journal of Research in Social Sciences and Humanities, 6(cs1), 519-528. (*SCOPUS*)
- Baskar, S., Pavithra, S., & Vanitha, T. (2015, February). Optimized placement and routing algorithm for ISCAS-85 circuit. In 2015 2nd international conference on electronics and communication systems (ICECS) (pp. 958-964). IEEE. (SCOPUS)

- **Baskar, S.** (2014, March). Error recognition and correction enhanced decoding of hybrid codes for memory application. In 2014 2nd International conference on devices, circuits and systems (ICDCS) (pp. 1-6). IEEE. (SCOPUS)
- Raghupathi, S., & **Baskar**, **S.** (2012). Design and Implementation of an Efficient and Modernized Technique of a Car Automation using Spartan-3 FPGA. Artificial Intelligent Systems and Machine Learning, 4(10).
- Baskar, S., & Saravanan, M. (2012). Error detection and correction enhanced decoding of differenceset codes for memory application. International Journal of Advanced Research in Computer and Communication Engineering, 1(10), 816-820.

### **INTERNATIONAL CONFERENCE PAPERS:**

- **Baskar**, S., Presented International paper on "Error Detection and Correction Enhanced Decoding on Difference Set Codes" and Awarded as the best base paper at VIT University, Chennai, Tamil Nadu, India
- **Baskar, S.,** Presented paper on "Experimental Analysis on Polymethyl Methacrylate (PMMA) In Orientation with Its Loss Spectrum" at PPG College of Engineering, Coimbatore, Tamil Nadu, India
- Baskar, S., Presented paper on "Hybrid Codes for Majority Logic Decoding Circuits" at IIM, Indore, India
- Baskar, S., Presented paper on "Efficient Analysis of LDPC Codes On USB-3.0" at Karunya University, Coimbatore, and Tamil Nadu, India. which has published in IEEE Xplore
- Baskar, S., Presented paper on "Design of Novel Routing Switches for Power Optimization in FPGA Routing Circuits" at Paavai Engineering College, Namakkal, Tamil Nadu, India
- **Baskar, S.,** Presented paper on "Optimized Placement and Routing Algorithm For ISCAS-85 Circuit" at Karpagam Institute of Technology, Coimbatore, which has published in IEEE Xplore, Coimbatore, Tamil Nadu, India

- Baskar, S., Presented paper on "Reliability Oriented Placement and Routing Analysis
  In Design Of Low Power Multiplier For Wireless Sensor Networks" at Velammal
  college of Engineering, Chennai, Tamil Nadu, India
- **Baskar**, **S.**, Presented paper on "Plastic Optical Fiber Communication on PMMA-Literature Survey" at Guru Nanak Institutions, Hyderabad, Telegana, India
- **Baskar**, S., Presented paper on "Efficient Active Resistor Based Clock Gating Design For The Implementation Of Arithmetic And Logic Circuit Design" at NSN College of engineering and Technology, Karur, Tamil Nadu, India.
- Baskar, S., Presented Poster on "Investigation on Secure Authenticated Scheme for Data Integrity In WSN" at SRM University, Tamil Nadu, India
- Baskar, S., Presented paper on "Smart Sensor System for Monitoring Human Thermal Condition Using Montgomery Approach-An Experimental Study" at IIT Roorkee, Uttarakhand, India.
- **Baskar, S.,** Presented paper on "Group Key Protocol using FIFO routing technique lifetime improvement and reliable communication in sensor network" at PPG Institute of Technology, Bali, Indonesia.
- **Baskar, S.,** Presented paper on "Municipal Solid waste segregation" at International journal of machine at construction engineering Coimbatore, Tamil Nadu, India.
- Baskar, S., Presented paper on "Classification system for Lung Cancer Nodule using Machine Learning Technique and CT images" at PPG Institute of Technology, Coimbatore, Tamil Nadu, India.

### NATIONAL CONFERENCE:

- **Baskar, S.,** Presented paper on "Ml Decoding Based Memory Fault Detection" at Bannari Amman college of Engineering, Coimbatore, Tamil Nadu, India.
- Baskar, S., Presented paper on "A Comparative Study On The Performance Analysis
  Of An ALM And LE, Of An FPGA Architecture" at RVS college of Engineering,
  Coimbatore, Tamil Nadu, India
- Baskar, S., Presented paper on "Signed Truncated Multiplier Design Using Modified Booth Methodology" at Tamil Nadu college of Engineering, Coimbatore, Tamil Nadu, India

- Baskar, S., Presented paper on "Mobile Charging Using Dynamo /Alternator" at Nandha college of Engineering, Erode, Tamil Nadu, India
- Baskar, S., Presented paper on "Comparitive Survey Of Various Low Power Clock Gating Technique For Alu Design" at Sasurie Academy, Coimbatore, Tamil Nadu, India

# PATENTS & COPYRIGHT FILED/GRANTED WITH DETAILS (FOR THE LAST 5 YEARS ONLY WITH COMPLETE REFERENCES)

S.	Year	Title	Application	Granted
No.			filing No.	On
1	2018	Portable water tank cleaner	306727	25-Oct-19
2	2018	Tank cleaning equipment set	306728	9-Aug-19
3	2018	Cleaning mechanism for cylindrical tank	306731	10-May-19
4	2018	Portable foot rest for long journey	306732	10-May-19
5	2018	Traveler acupressure pedal	306733	14-Feb-20
6	2018	Foot relaxing equipment	306734	10-Jan-20
7	2018	Acupressure foot rejuvenator	306735	9-Aug-19
8	2019	Horizontal Air Purifier	315943-001	8-Nov-19
9	2019	Vertical Air Purifier	315943-002	20-Mar-20
10	2019	Indoor Air Purifier	315943-003	8-Nov-19
11	2019	Outdoor Air Purifier	315943-004	10-Jan-20
12	2019	Air Purifier	315943-005	14-Feb-20
13	2019	Table top air purification fan	315943-006	31-May-19
14	2019	Multistage air purification channel	315943-007	31-May-19
15	2019	Indoor air filtration device	315943-008	10-Jan-20
16	2019	Air purification device	315943-009	15-Nov-19
17	2019	Air filtration device	315943-010	22-May-20
18	2020	Soil Suction Mechanism for Bore well Rescue	328391-001	12-Jun-20

### **Copyright**

Diary Number	Work Title	Class of Work	Submitted By	Submitted On	Status	Date of grant
10687/2019- CO/L	128' bit Elliptic Curve Crypto program using Chinese Multiplication	Literary/ Dramatic	Sridhar K P	10-07- 2019	Granted	31 01 2020
10686/2019- CO/L	Optimized Booth Multiplier Program	Literary/ Dramatic	Sridhar K P	10-07- 2019	Granted	03 02 2020
10685/2019- CO/L	Optimized Error Detection and Correction Coding	Literary/ Dramatic	Sridhar K P	10-07- 2019	Granted	03 02 2020
10571/2019- CO/L	64-bit Galois field FPGA architecture	Literary/ Dramatic	Sridhar K P	08-07- 2019	Granted	01.11.2019

# BOOKS PUBLISHED /CHAPTERS CONTRIBUTED (FOR THE LAST 5 YEARS ONLY WITH COMPLETE REFERENCES

• Published Book on "Medical image segmentation approaches for identifying tumor in brain" with ISBN-13-978-613-9-82349-9 by Lap Lambert Academic Publishers

### AWARDS/RECOGNITION, IF ANY:

- > Awarded as Young Scientist by Department of Science and technology, New Delhi.
- ➤ Awarded as "Best Researcher" by SIAA-2017.
- Awarded "Best innovative Technology" by Government of Tamil Nadu for CM's Project contest.
- > Awarded as "Best Mentor" by Smart India Hackathon by AICTE.
- > Awarded as GD Naidu -Young Scientist by ISRO Director.

# SPONSORED RESEARCH PROJECTS AS PI(STRICTLY FOR THE LAST 5 YEARS ONLY WITH COMPLETE REFERENCES)

S.	Title	Sponsoring	Per	iod	Amount	Achievements
No		Agency From To		(Rupees in		
					lakhs)	
1	"Municipal Solid Waste	DST	2019	2021	32,00,000	Published my
	Management using sensor					first Work at
	assistance" Project					Elsevier
	(SYST- SP/YO/559/2018)					Journal with
						high Impact
2	Design and development	DST	2018	2020	54,18,380/-	Patented and
	of novel gripper robotic					Published my
	ARM					first Work at
	(DST TIASN					Elsevier
	SEED/TIASN/003/2018-					Journal with
	Dated					high Impact
3	A novel, low cost	DST	2020	2022	89,62,760	Sanctioned
	automated agrobot for					
	plant disease					
	Analysis and control-Agro					
	using bio-sensors.					
4.	Tamil Nadu City	TNSCST	2020	2020	4,500	Sanctioned
	Vegetable development					
	scheme: Sensor-based					
	poly-house development					
	and parameter monitoring					
	for vegetation					

## CONSULTANCY PROJECTS (STRICTLY FOR THE LAST 5 YEARS ONLY WITH COMPLETE REFERENCES)

S. No	Title	<b>Sponsoring Agency</b>	Period	Amount
				(Rupees in
				Lakhs)
1.	Testing of IP's	S and G innovators,	2016-2017	2,50,000
	for VLSI and	Coimbatore, India		
	Embedded			
	prototypes			

# SPONSORED RESEARCH/ CONSULTANCY PROJECTS SUBMITTED FOR APPROVAL.

S. No	Title	Agency to whom	Duration	Date of	Amount
		submitted		Submission	(Rupees in
					Lakhs)
1.	Testing of	Sameep	2 Years	Dec-2018	10,00,000
	IP's for	Industries,			
	VLSI and	Coimbatore,			
	Embedded	India			
	prototypes				

### **CONSULTANT RESPONSIBILITIES INCLUDE:**

- As a consultant I provide a variety of leading-edge FPGA-based development services, and perfectly positioned to help solving technical issues with respect to project
- NSDC (National Skill Development Corporation) coordinator for developing training programs modules for the emerging small-scale industries

### TEACHING RESPONSIBILITIES INCLUDE:

- Delivered instruction on technology integration to teachers and prospective teachers
- Developed educational technology curriculum for delivery of classroom and online coursework
- Researched new and innovative applications and theories on technology
- Inspired students to integrate technology into daily classroom activities
- Restructured student attitudes regarding purpose and use of technology in classroom.
- Taught Integrating Technology in the Classroom
- Responsibilities include academic advising of students, participation in college committees and activities, and supervision of undergraduate research projects
- Responsible for planning lecture and lab, including syllabus preparation, test construction, grade assessment, lab preparation, lab supervision and NBA coordinator.
- Responsible for Research and development activities under planning and monitoring committee.
- Institutional Secretary for all the international conferences.

### AREAS OF INTEREST

- Low VLSI Design
- ASIC design methodologies
- SOC-System on chip designments, MIoT, IIoT, Sensor Networks

### LIST OF INVITED TALKS/GUEST LECTURE

- Presided a session on "Recent trends in VLSI design" in JKNN college of Engineering, Salem as an Invitee
- Presided a session on "VLSI design flow and Low power VLSI" in Selvam college of Engineering, Karur as a Guest of Honor
- Presided a session on "FPGA and ASIC design flow" in Dhanalaksmi Srinivasan college of engineering, Coimbatore as a Invitee
- Presided a session on "Futuristic trends in VLSI" in Gnanamani college of engineering, Salem as an Invitee

- Presided a session on "Renewable energy" in PSG Tech, Coimbatore as an Invitee
- Presided a session on "ASIC flow" in Sri Krishna college of engineering and technology, Coimbatore as an Invitee
- Presided a session on "Nano Robots" in Mother Teresa Women's University, Kodaikanal As an Invitee
- Presided a session on "Government Funding Project" in Karpagam Medical College, Coimbatore As an Invitee
- Presided a session on **Invited Talk- ICECTT keynote speaker** for 2019 4th International Conference on Electromechanical Control Technology and Transportation (ICECTT 2019), China.

#### REVIEWER BOARD

- Reviewer IGI Global, in Wireless sensor networks and VLSI design techniques
- **Reviewer for IEEE Access**, in MIoT, IoT, Sensor networks and VLSI design techniques
- **Reviewer Bentham Science**, in Image Processing Applications.
- Reviewer Inderscience, in Wireless sensor networks and VLSI design techniques
- Reviewer IEEE transaction on vehicular technology, in IoV networks and smart vehicle management.

### PROFESSIONAL BODY MEMBERSHIP

- Indian Society for Technical Education (ISTE-LM 101184) Life Time Member
- Association of Scientists, Developers and Faculties (ASDF) Life Time Member
- International Association of Engineers. (IAENG Member No: 153982) Life Time Member
- IEEE member (**No:95021273**)

### **INTERESTS AND HOBBIES**

- Drawing and painting
- Yoga
- REIKI method of **Natural Healing**

PERSONAL DETAILS	
Nationality	Indian
Sex	Male
Father's name	R.Selvaraj
Father's occupation	Farmer
Languages known	Tamil, English, Telugu, Malayalam (To Speak)

## **DECLARATION:**

I do hereby confirm that the information given in this form is true to the best of my knowledge and belief

(BASKAR S)