CURRICULUM VITAE

DR. G. ARUN SAMPAUL THOMAS

HOME ADDRESS
No. 6-1 (A6), Aayan Manzil (1st floor),
Sun city, Bandlaguda Jagir,
Ranga Reddy District
Hyderabad- 500081
Telangana, INDIA

Mobile No: **+91 95855 11808**
E-mail @: arunsam.infotech@gmail.com

PROFILE

- **Date of Birth**   : 24-10-1984
- **Father's name**   : Mr. P. Gnanaraj
- **Sex**   : Male
- **Marital status**   : Married
- **Nationality**   : Indian
- **Organization**   : J.B. Institute of Engineering & Technology, Hyderabad
- **Position**   : Associate Professor in Department of CSE
- **Passport No**   : N0453430
- **References**   :
  - Dr. J. Veerappan, Professor, ECE Department, Bharath University, Chennai. Mob: 9442325343
  - Dr. S. Balaji, Prof / CSE, FX Engineering. College, Tirunelveli, Tamilnadu. Mob: 9965847450

CAREER OBJECTIVE

- **To utilize my skills and abilities in area of Teaching and Education that offers a professional growth while being resourceful, innovative, and flexible.**
- **To exploit my teaching skills towards a challenging career in growth oriented and leading edge that will provide mutual benefits and where from I can utilize my capabilities to the fullest benefits of the organization and society.**

QUALIFICATION

- **Doctor of Philosophy (Ph. D)** in *Computer Science & Engineering*, Anna University Chennai in Feb. 2018.
- **Master of Engineering** in *Computer Science & Engineering*, SCAD College of Engineering & Technology, Tirunelveli, Anna University in June 2010: **76.4%**
- **Bachelor of Engineering** in *Information Technology*, Karunya Institute of Technology, Coimbatore, Anna University in May 2006: **7.25 *CGPA***
- **Higher School Certificate**: English Medium, St John's Hr Sec School, Palayamkottai in March 2002: **76.5 %**
- **Secondary School Leaving Certificate**: English Medium, St John's Hr Sec School, Palayamkottai in March 2000: **81.5 %**

TEACHING EXPERIENCE

August 2022 – Present	**J.B. Institute of Engineering and Technology**	**Hyderabad, Telangana**
	Associate Professor & HOD Department of AI&ML	
April 2018 – August 2022	**J.B. Institute of Engineering and Technology**	**Hyderabad, Telangana**
	Associate Professor – Department of CSE	
June 2010 – March 2018	**SCAD College of Engineering and Technology**	**Tirunelveli, Tamilnadu**
	Associate Head – Department of CSE & IT	
May 2007 – Aug 2008	**SCAD College of Engineering and Technology**	**Tirunelveli, Tamilnadu**
	Lecturer – Department of Information Technology	

TEACHING SKILLS / KNOWLEDGE

- Coursework Design
- Individual Instruction
- Class Motivation
- Classroom Administration
- Student Assessments
- Lab oriented subject learning
- Smart classroom-based teaching
- Interactive Learning

TEACHING SUBJECT SKILLS

- Computer Networks
- Big Data Analytics, Data Science

TECHNICAL SKILLS

- *EMC^2 Certified: Academic Associate in Cloud Infrastructure and Services*
- *Cisco Trained: Cisco Certified Network Associate – CCNA*
- *Programming Languages*: C, C++, and Java.
- *Platforms*: Windows XP, Windows 7 & 8.
- *Packages*: MS Office 2007, Oracle 8i, NetBeans IDE.

ADMINISTRATIVE EXPERIENCES

- Head of the Department / IT
- Associate Head / CSE
- NBA – Criteria 1,2 & 9 Coordinator
- Computer Cloud Lab Incharge
- Anna University Affiliation Incharge
- Student Mentor
- College Internal Quality Cell Incharge
- Department Research Coordinator

TEACHING ACHIEVEMENTS

- Got the **BEST DEPARTMENT** award as a **faculty team of CSE** for the *Academic year 2017-18.*
- **Five of our students got *UNIVERSITY RANKS*** during the period of service as **Head of the Department.**
- Recognized as **SILVER PARTNER FACULTY** in *PARTNERS IN SUCCESS 2013* under Inspire – The Campus Connect Faculty Partnership model on 20th August 2013 by Infosys Technologies, Chennai.
- Awarded **Er.D.A. RAJAN AMBITION AWARD 2013** by *THE INSTITUTION OF ENGINEERING AND TECHNOLOGY – CHENNAI NETWORK* on 31st August 2013

ACADEMIC PROJECTS AND RESEARCH AREA

1) RESEARCH AREA

- **Some Studies on Node Behavioural Pattern based Clustering and Routing Techniques for the Delay Tolerant Mobile Networks**

The research work deals with the improvement of clustering of mobile nodes with node prediction and cluster-based routing in DTMN. The fundamental idea is to autonomously study the anonymous and possibly random mobility parameters and to group the mobile nodes with similar mobility pattern into the same cluster. The mobile nodes in a cluster can then interchangeably share their resources for overhead reduction and load balancing, intending to achieve efficient and scalable routing in DTMN. Furthermore, the research is focusing on the improvement of QoS parameters such as End to End Delay, Packet Delivery Ratio (PDR), and Energy Consumption Ratio.

2) POSTGRADUATE - PROJECT

- **Context-Aware Adaptive Routing For Mobile Adhoc Networks Using Spray & Focus**

  Tools used : *Java*

  Done at : SCAD College of Engineering & Technology, Tirunelveli – 627 414

This Project work implemented in mobile ad hoc networking, which is based on the assumption that a path exists between the sender and the receiver. Context-aware Adaptive Routing (CAR) protocol for delay-tolerant unicast communication in intermittently connected mobile ad hoc networks. CAR exploiting nodes as carriers of messages among network partitions to achieve delivery. The design goal of CAR is to support communication in intermittently connected mobile ad hoc networks. The key problem solved by the protocol is the selection of the carrier. CAR is more extendible and endless connectivity.

3) UNDERGRADUATE – PROJECT

- **Online Paper Submission**

  Tools used : *JSP and ORACLE Database*

  Done at : Karunya Institute of Technology, Coimbatore – 641 114.

This is a web-based design constructed with the use of JSP Pages, and the data stored in Oracle- Database. This project enables the online presentation of similar projects by scholars in academic institution and academicians presenting Papers for conferences, seminars and journals. It also enables the professor/editor/officer in charge of collecting the project papers, conference papers or journal articles to contact examiners, reviewers or editors at once collect their comments, reviews and evaluation, and proceeds further depending upon the feedback received. This online Paper submission has the advantage of reaching a number of concerned scholars in any part of the world in a matter of minutes, and also collects their feedback at once. The person who has submitted the project/conference paper/journal article has also the additional advantage of interacting with the examiners, reviewers, etc. While a printed project can reach only the person to whom it is sent, such web-based online submission of a project/conference paper/journal article can attract the attention of any scholar skilled in the subject presented.

ACADEMIC PROGRESS

1) National Conferences

Paper Title	Venue & Year
"Grid Application Deployment based on Network Topology rendering Model"	Mahendra Engineering College, Nammakkal on April '10
"Freight paired for cellular /WLAN assimilated networks"	Anna University, Tirunelveli on May '09
"Superior Broadband wireless access via WI-MAX networks"	National College of Engineering, Maruthakulam on March '09
"Enhancing Rummage around performance in unstructed P2P networks on user's common interest"	Sasurie College of Engineering, Erode on Feb '09
"An Adaptive and Efficient Mobile Video Streaming with Social Video Sharing Based Framework In Cloud Computing Technique"	Dr. Sivanthi Aditanar College of Engineering, Tiruchendur on March '14

2) International Conferences

- *"A novel feature selection method using WOA and MI technique for intrusion detection system in smart meter communication*", at the *International Conference on Devices, Intelligent Systems & Communications (DISC 2020)* held at J.B. Institute of Engineering & Technology, Hyderabad on January 2020.
- *"Trust Threshold based neighborhood Trustworthy with Node certified Public key Management Scheme in MANET", at the International Conference on Recent advances in Engineering & Technology* held at *Arunachala College of Engineering for Women, Kanyakumari on March '18.*
- *"Forecasting of Medicinal Leaf and its Exploitations using Chamfer image processing scheme", at the International Conference on Recent advances in Engineering & Technology* held at *Arunachala College of Engineering for Women, Kanyakumari on March '18.*
- *"SPF-ECP: Self-structured Predictive cum Fast-adaptive Enhanced Clustering protocol for DTMN Routing", at the International Conference on Electrical, Electronics & Computer Engineering* held at *Vivekanandha College of Engineering for Women, Tiruchengode, Namakkal on March '15*
- *"PF-ECP: Predictive cum Fast-adaptive Enhanced Clustering protocol-based routing for DTMN", at the International Conference on Modeling, Optimization and computing* held at *Noorul Islam Centre for Higher education, Kumaracoil, Kanyakumari on April '14*
- "**Innovative Prototype Teaching Model: Enrichment Projected for Academic Classroom Teaching**", at *ICLDCM - 2010* held at *Karunya University, Coimbatore on December '10.*
- "**CAR: Context-Aware Adaptive Routing for Mobile Adhoc Networks Using Spray & Focus**", at *2nd International Conference on Intelligent Science & Technology* held at *SUN Engineering College, Nagercoil on March '10.*

3) Paper Publications

- Arun Sampaul Thomas. G, et al., "Classification and Analysis of Pistachio Species Through Neural Embedding-Based Feature Extraction and Small-Scale Machine Learning Techniques," *International Journal of Image and Graphics (Scopus ,* March 2023, Online ready, ISSN (print): 0219-4678 | ISSN (online): 1793-6756, https://doi.org/10.1142/S0219467824500323.
- Arun Sampaul Thomas. G, et al., "**Fake news prediction of Text and Image with Report generation**," *The International journal of analytical and experimental modal analysis***,** September 2021, Volume: XIII, Issue: IX, ISSN: 0886-9367.
- Arun Sampaul Thomas. G, et al., "**Fast and correspondence capable computation for scattered SVM**," *The International journal of analytical and experimental modal analysis,* September 2021, Volume: XIII, Issue: IX, ISSN: 0886-9367.
- Arun Sampaul Thomas, G, "**Intelligent Prediction Approach for Diabetic Retinopathy Using Deep Learning Based Convolutional Neural Networks Algorithm by Means of Retina Photographs**," *Computers, Materials & Continua Journal, Tech Science Press*, 26 November 2020, Volume: 66, Issue: 02, ISSN: 1546-2218, **SCI Index with IF 4.89, Scopus Indexed with IF 3.8.**
- Arun Sampaul Thomas, G, "**Discovery Of Compound Objects In Traffic Scenes Images With A CNN Centred Context Using Open CV**," *ICTACT Journal On Image And Video Processing*, November 2019, Volume: 10, Issue: 02 , ISSN: 0976-9102 .
- Arun Sampaul Thomas, G, "**Trust Threshold Based Neighborhood Trustworthy With Node Certified Public Key Management Scheme In MANET**," *International Journal of Scientific Research & Review, Vol. 5,* Issue *No 9, September 2018*, ISSN: 0972-1347.

- Arun Sampaul Thomas, G, "**Energy Aware Clustering Algorithm for Wireless Sensor Networks**," *i-manager's Journal on Wireless Communication Networks, Vol. 5* No. 4 1, *January - March 2017*, ISSN: 2319-4839, 2320-2351.
- Arun SamPaul Thomas, G, "**SPF-ECP: Self-organized, Predictive, and Fast Adaptive – Enhanced Clustering Protocol for DTMN routing**," *Wireless Personal Communications, Springer Publications*, August 2016, ISSN: 0929-6212, 1572-834X, IF - 0.7.
- Arun SamPaul Thomas, G, **"MSC-ECP: Mean Shift Clustering-Enhanced Cluster-based Routing Protocol for Delay Tolerant Mobile Networks",** *Institute of Integrative Omics and Applied Biotechnology*, November 2016, ISSN: 0976-3104.
- Arun SamPaul Thomas, G, "**FASO-ECP: Fast Adaptive and Self Organized - Enhanced Clustering Protocol based routing for DTMN**", *IEEE Xplore Proceedings of ICOAC 2012 conducted at MIT Campus, Anna University Chennai, 13-15 Dec 2012, pp.1-8.*
- Arun SamPaul Thomas, G, **"Fast Adaptive Mean Shift Clustering and Cluster based Routing protocol for DTMN",** *CIIT – International Journal, Publication on vol. 3, no .7, May 2011, pp.512-517.*
- Arun SamPaul Thomas, G, "**An Advanced Controlled-Flooding Routing with Group Organization for Delay Tolerant Networks using A-SMART**", at *IEEE Xplore Proceedings of ICETECT – 2011* held at *St. Xaviers Catholic College of Engineering, Nagercoil, 23-24 March '11, pp. 847-852.*

4) Book Chapter & Patent Publications

- Arun Sampaul Thomas, et al. (2023). "**Future of Medical Research with a Data-driven Federated Learning Approach**" Handbook on Federated Learning: Advances, Applications and Opportunities (1st ed.). CRC Press. https://doi.org/10.1201/9781003384854.
- Arun Sampaul Thomas, et al. (2023). "**Predictive Analytics of Climate Change The Future of Global Warming Lies in Data Analytics**" (2023). Predictive Analytics in Smart Agriculture (1st ed.). CRC Press. https://doi.org/10.1201/9781003391302.
- Arun Sampaul Thomas, et al. (2023). "**Broad Framework of Digital Twins in Agricultural Domain**" (2023). Predictive Analytics in Smart Agriculture (1st ed.). CRC Press. https://doi.org/10.1201/9781003391302.
- Arun Sampaul Thomas, "**Green IoT use case approaches for blockchain technology taking industry 5.0 to the next level**," *Elsevier Book Chapter- Green Blockchain Technology for Sustainable Smart Cities, 2023*, PP 119-141, ISSN: 978-0-323-95407-5.
- Arun Sampaul Thomas, (2023). '**Revolutionizing Smart Grids with Big Data Analytics: A Case Study on Integrating Renewable Energy and Predicting Faults'** in *Data Analytics for Smart Grids Applications—A Key to Smart City Development. Intelligent Systems Reference Library, vol 247. Springer*, Cham. https://doi.org/10.1007/978-3-031-46092-0_11
- Arun Sampaul Thomas, G, "**IoT, Big Data, Blockchain and Machine Learning Besides Its Transmutation with Modern Technological Applications**," *Springer Book Chapter-Internet of Things and Big Data Applications-Part of the Intelligent Systems Reference Library book series* (ISRL, volume 180), 25 February 2020, PP 47-63 , ISSN: 978-3-030-39118-8.
- Arun Sampaul Thomas, G, "**Machine Learning strategy for performance enhancement of phase change material for a smart control solar application**" *Patent Published in* IPR PATENT approved by Intellectual Property Rights of India, published on 02.12.2022.
- Arun Sampaul Thomas, G, "**Classifying snake bite marks into venomous snake bite and non-venomous snake bite using deep convolutional neural networks**," *Patent Published in* IPR PATENT approved by Intellectual Property Rights of India, published on 26.08.2022.
- Arun Sampaul Thomas, G, "**Real-Time Health System (RTHS) Centered Internet of Things (IoT) in Healthcare Industry: Benefits, Use Cases and Advancements in 2020**," Springer's Multimedia Technologies on the Internet of Things Environment (Scopus Indexed), **29 September 2020**, ISSN: 978-981-15-7965-3.
- Arun Sampaul Thomas, G, "**Automatic Touchless Mist Spray Sanitizer Dispenser**," *Patent Published in* IPR PATENT approved by Intellectual Property Rights of India, published on 03.07.2020.

5) Guest Talk / Resource Person

- Resource person for Seven days Faculty Development Training program sponsored by Anna University Chennai on "**Operating systems**" organized by CSE Department, SCAD CET,
- "**A Clustering Behavioral pattern for Node Prediction to improve the QOS in the DTMN**", November 2016, for Engineering PG students of ECE Department at *Vel Tech High Tech Dr. Rangarajan Dr. Sakunthala Engineering College, Chennai.*
- "**Cluster-based routing techniques for Mobile Networks**", February 2013, for Engineering PG students & Faculty members of ECE Department at *Sethu Institute of Technology, Kariapatti, Virudhunagar.*
- "**Advanced Wireless Communication Systems**", for Engineering PG Students of ECE Department at *Sethu Institute of Technology, Kariapatti, Virudhunagar.*

6) Faculty Development Programs / Workshops / Seminars attended

- Faculty Development Program on "**Machine Learning with Python**" organized by J.B. Institute of Engineering and Technology, Hyderabad, 05th August to 09th August 2019.
- Online Course on "**Unpacking the IoT**" organized by Udemy certifications, 08th August 2018.
- Faculty Development Program on "**Data Science and Big Data Analytics**" organized by ICT Academy at CMR College of Engineering and Technology, Hyderabad, 30th April to 4th May 2018.
- Online IIRS outreach Program on "**Hyper spectral Remote Sensing and its Application**" organized by Indian Institute of Remote Sensing, Department of space, Govt. of India, 19th February 2018 to 14th March 2018.
- Faculty Development Program on "**Personality Development**" organized by SCAD College of Engineering and Technology, Tirunelveli, 17th February 2018.
- Faculty Development Program on "**Artificial Intelligence**" organized by Francis Xavier Engineering College - Tirunelveli, 24th November to 30th November 2017.
- International Workshop on "**Recent Trends in Indian Medicine – A Technological Overview**" organized by Govt. Siddha Medical College at SCAD College of Engineering & Technology - Tirunelveli, 23rd & 24th September 2016.
- Faculty Development Program on "**Cloud Infrastructure and Services**" organized by EMC^2 at Francis Xavier Engineering College - Tirunelveli, 30th May to 4th June. 2016.
- Professional Development program on "**Psychology of Vision – Partnership and Success**", 9th & 10th April 2015, SCAD INDIA.
- International Workshop on "**System Thinking & Modeling**", 15th April 2013, SCAD College of Engg. & Technology, Tirunelveli.
- Faculty Development Program on "**Web Technology**" organized by MIT Campus – Anna University Chennai, 3rd to 9th Dec. 2012.
- *Faculty Enablement Program* at Infosys Development Centre – Chennai, 9th to 13th July 2012.
- Workshop on "**Network Simulation using NS-2**" organized by National College of Engg., Tirunelveli, 10th March 2012.
- Attended the **41st ISTE Annual National Convention** organized by Indian Society for Technical Education at Punjab, 16th to 18th December 2011.
- Workshop on "**Wireless Sensor Networks & its simulation tools**" organized by The Indian Engg. College, Vadakankulam, 7th January 2010.
- Faculty Development Program on "**Neural Network and Fuzzy logic**" organized by National College of Engg., Tirunelveli, 20th & 21st Nov 2009.
- Workshop on "**Soft Computing - New trends, Research Issues and Applications**" organized by Anna University Tirunelveli, Tirunelveli, 19th & 20th March 2009.
- Seminar on "**Network Security**" organized by Francis Xavier Engg. College, Tirunelveli, 21st February 2009.

7) Professional Body Memberships
- Life member of **ISTE** (Indian Society for Technical Education)
- Associate member of **IET-UK** (Institution of Engineering & Technology – UK)

8) Workshops / Conferences Jointly Organized
- Faculty Development Program on "**Machine Learning with Python**", J.B. Institute of Engineering and Technology, Hyderabad, 05th August to 09th August 2019.
- **National Conference on Research & Applications of Information Technology '15**, 19th March 2015, SCAD College of Engg. & Technology, Tirunelveli.
- **National Conference on Research & Applications of Information Technology '14**, 19th March 2014, SCAD College of Engg. & Technology, Tirunelveli.
- **National Conference on Research & Applications of Information Technology '13**, 13th March 2013, SCAD College of Engg. & Technology, Tirunelveli.
- Workshop on "**Proficient Document writing using LATEX**", 11th October 2012, SCAD College of Engg. & Technology, Tirunelveli.
- **National Conference on Research & Applications of Information Technology '12**, 2nd March 2012, SCAD College of Engg. & Technology, Tirunelveli.
- Workshop on "**Open-Source Linux**", 24th September 2011, SCAD College of Engg. & Technology, Tirunelveli.

I hereby declare that all the information given in this application is true to the best of my knowledge and belief.

Signature of the Candidate