

## Santhosh Kumar G

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| CONTACT INFORMATION             | Professor<br>Department of Computer Science<br>Cochin University of Science and Technology<br>Cochin, Kerala 682 022 India   | <i>Voice:</i> (+91) (484) 2577126-2306<br><i>Fax:</i> (+91) (484) 2577087<br><i>E-mail:</i> san@cusat.ac.in<br><i>WWW:</i> MyHome |
| EDUCATION                       | <b>Cochin University</b> , Cochin, Kerala India<br>Ph.D., Faculty of Technology, October 2011 <ul style="list-style-type: none"><li>• Dissertation Topic: “Energy-Efficient Cluster based Routing Schemes for Static and Mobile Sensor Networks”</li><li>• Advisor: K. Poullose Jacob</li></ul> M.Tech., Computer and Information Science, 1999<br>M.Phil., Physics, 1997<br>M.Sc., Physics, 1995<br><br><b>M.G. University</b> , Kottayam, Kerala India<br>B.Sc., Physics, 1992 |   |
| PROFESSIONAL EXPERIENCE         | <b>Department of Computer Science, Cochin University of Science and Technology</b> , Cochin, Kerala, India<br><i>Professor</i><br><i>Associate Professor</i><br><i>Assistant Professor</i>   | <b>March, 2017 - till date</b><br><b>March, 2014 - March, 2017 date</b><br><b>March, 2001 - March, 2014</b>                       |
|                                 | <b>Tao Information Technology</b> , Bangalore, India<br><i>Senior Analyst Programmer</i>   | <b>January, 2000 - February, 2001</b>   |
|                                 | <b>Infortech SDN, BHD</b> , KL, Malaysia<br><i>Analyst Programmer</i><br>Worked for R& D division of Fujitsu, Japan  | <b>July, 1999 - December, 1999</b>  |
| RESEARCH INTERESTS              | Cyber Physical Systems, Computer Vision, Data Science, NLP   |   |
| HONORS RECEIVED                 | <i>Visiting Scholar</i> , School of Electronics, Electrical Engineering and Computer Science, Queen’s University, Belfast, United Kingdom from 26-05-2023 - 25-05-2026   |   |
| ADMINISTRATIVE RESPONSIBILITIES | <i>Member</i> , Syndicate, Cochin University from 17-04-2023 - till date<br><i>Hon. Director</i> , Center for Information Resource Management, Cochin University from 17-06-2015 - till date<br><i>Chairman</i> , Board of Studies, Computer Science, Cochin University from 07-05-2019 to till 02-08-2023<br><i>Head</i> , Department of Computer Science, Cochin University from 21-04-2017 - 28-04-2020 (3 Year tenure)   |   |

*Member*, Board of Governance & Executive Committee, CDiT, Thiruvananthapuram from 05-01-2019 till date

*Member*, Senate, Cochin University from 21-04-2017 to 20-04-2020 (3 Year tenure)

*Member*, Board of Studies, Computer Applications, Manonmaniam Sundaranar University from 26-02-2020 to till date

*Member*, Board of Studies, Computer Applications, Cochin University from 07-05-2019 to till date

PROFESSIONAL  
ACTIVITIES

*Publication Chair*, 2022 Annual IEEE India Conference (INDICON), CUSAT, November 2022

*Chair*, Educational Activities Committee, IEEE Kerala Section, from January 2022- Dec 2022

*Coordinator*, ATAL FDP on Machine Learning for Interdisciplinary Engineering Applications, 12-23, September 2022

*Chair*, IEEE Kochi Subsection, from January 2020- December 2021

*Coordinator*, ATAL FDP on Internet of Things, 02-06, February 2021

*Organizing Chair*, Int.Conf.on Data Science and Engineering (ICDSE), Kochi, December 2020

*General Chair*, Int.Conf. on Data Science and Engineering (ICDSE), IIT Patna, Septemeber 2019

*Organizing Secretary*, ACM India Annual Event, Kochi, February 2019

*Organizing Chair*, IEEE Int.Conf. on Data Science and Engineering (ICDSE), Kochi, August 2018

*Org. Member*, 6th National Conference on Indian Language Computing, Kochi, March 2018

*Organizing Secretary*, 6th National Conference on Software Engineering, Kochi, March 2018

*Publication Chair*, IEEE 2017 Region 10 Symposium (Tensymp), Kochi, July 2017

*Organizing Secretary*, IEEE Int.Conf. on Data Science and Engineering (ICDSE), Kochi, July 2016

*Co-ordinator for Kochi*, Indian Computing Olympiad 2015,2016,2017,2018,2019,2020,2022

Associate of Institute of Mathematical Science, Chennai, Tamilnadu, 2006-2008

GRANTS RECEIVED

Principal Investigator, *Building Energy-Efficient Home Plans for Smart Cities*, RUSA 2.0 **June 2023- June 2025**, INR 64,00,000.00

Co-Project Investigator, *Responsible Disinformation Detection with an Emphasis on Global South*, Queen's University, Belfast, UK, **July 2022- June 2023**, £9,950.00

Principal Investigator, International Network for Image-based Diagnosis, INTPART, Research Council of Norway, (Partners: NTNU, Norway, Hainan University, China, University of Pennsylvania, USA, University of Aizu, Japan), **2020-2023**, INR 4,50,00,000

Co-Project Investigator, SPARC Project of MHRD, India ( Main partner: IIIT Delhi, Other partners: Queen's University, Belfast, UK, and Nanyang Technological University, Singapore), **2019-2021**, INR 68,99,000

Received INR. 42,00,000 from DST under FIST program India for the development of WSN testbed in the department, 2012-2017

CONSULTANCY  
WORKS

Online Learning Management System for St. Treasa's College, Kerala **October 2020**

Intelligent Archiving System for Kerala Police **July 2020**

SUPERVISION (PHD  
STUDENTS)

**Shimmi Asokan:** *Thesis Title* "Formal Modeling and Verification of Clock Synchronization Algorithms of In-Vehicle Networks in Automotive Systems", **13 February 2024**

**Muhammed Anees V:** *Thesis Title* "Modelling Crowd Patterns and Detection of Abnormal Behaviours from High Density Videos Using Computer Vision Techniques", **15 June 2023**

**Kochaleema KH:** *Thesis Title* "Verification and Validation of Temporal Models in Safety Critical Software Development Cycle A Unified Modeling Language Approach", **31 March 2023**

**Namitha K:** *Thesis Title* “Learning concept drift and recurrence from data streams a clustering approach”, **09 August 2021**

**Mary Priya Sebastin:** *Thesis Title* “An improved phrase based english malayalam machine translation system using refined bilingual alignments”, **13 July 2021**

**Saritha S:** *Thesis Title* “Mining colocation patterns and change detection in spatiotemporal data a tensor factorization approach”, **28 May 2020**

INVITED TALKS  
(SELECTED)

*Science of AI*, Keynote address, ACPI 46th Annual Research Semina, Little Flower Seminary, Aluva Kerala **October 21-23, 2023**

*Cyber Physical Systems for edge computing*, Keynote address, Faculty Development Program on Edge based IOT for industrial Applications, Jyothi Engineering College, Thrissur, Kerala **January 19-23, 2023**

*Mathematics of Deep Learning*, Invited Talk, Faculty Development Program on Mathematical Foundations of AI and Data Science, Muthoot Institute of Technology and Science, Kerala **June 23-25, 2021**

*Machine Learning Applications for Big Data Analytics*, Invited Talk, Faculty Development Program on Data Analytics, College of Engineering, Kigangoor, Kerala **February 17 2021**

*Mathematical Perspectives of Data Science*, Invited Talk, Faculty Development Program on Mathematics for Data Science, Muthoot Institute of Tecnology and Science, Kerala **August 14 2020**

*Spatiotemporal Data Mining: Research frontiers*, Invited Talk, Faculty Development Program on Data Science for Web and Social Media, IIITD, Delhi **Feb 28 - 03 March 2020**

*Trends in Teaching, Learning and Research*, Invited Talk, RUSA Sponsored FDP on MOOCs, Moodle and e-Content Development, M A College, Kothamangalam, Kochi **16 December 2019**

*Fake News Detection and Mitigation Strategies*, Invited Talk, NCILC, Cochin University, Tamil Nadu **16 March 2019**

*Virtual Learning*, Invited Talk, UGC-HRDC, Bharathidasan University, Tamil Nadu **16 February 2019**

*Research Topics in Machine Learning*, Invited Talk, UGC-HRDC, Bharathidasan University, Tamil Nadu **10 March 2018**

*Current Trends in Machine Learning*, Invited Talk, CSI Kochi Chapter, **27 July 2017**

*Machine Vision - Recent Research Problems*, Keynote Speech, National Conference on Recent Trends in Computational Intelligence and Image Processing, CE Vadakara, **22 February 2017**

*Google Scholar and Research Tools*, Invited Talk, CUSAT, **04 February 2017**

PROFESSIONAL  
MEMBERSHIP

ACM Senior Professional Member (Membership No: 7509433)

IEEE Senior Member (Membership No: 90266380)

CSI Life Member (No: 01087107)

REVIEWER

*IEEE Access*, *IEEE*: Associate Editor

*ACM Computing Surveys*, *ACM*: Reviewer

*Journal of Wireless Personal Communications*, *Springer*: Reviewer

*Int. J of Wireless and Mobile Communications*, *Inderscience*: Reviewer

*Int. J of Trust Management in Computing and Communications*, *Inderscience*: Reviewer

*The Computer Journal*, *Oxford*: Reviewer

*The Journal of Academic Librarianship*, *Elsevier*: Reviewer

*The Electronic Library*, *Emerald*: Reviewer

PUBLICATIONS

[PATENTS]

*Methods and Systems for Determining Performance Parameters of an Edge Computing System* Indian Patent, Patent Number: 488320, Date of Grant: 22/12/2023.

[BOOKS] *Data Science for Fake News: Surveys and Perspectives*: Published by Springer (2021) ISBN: 978-3-030-62695-2.

[EDITED VOLUMES] *Responsible Data Science: Select Proceedings of ICDSE 2021*: Published by Springer (2022) ISBN: 978-981-19-4452-9.

*Proceedings of ICDSE 2020*: Published by IEEE (2020) ISBN: 978-1-7281-8919-2.

*Proceedings of ICDSE 2018*: Published by IEEE (2018) ISBN: 978-1-5386-4855-1.

*Proceedings of ICDSE 2016*: Published by IEEE (2016) ISBN: 978-1-5090-1282-4.

*Proceedings of ICDSE 2014*: Published by IEEE (2014) ISBN: 978-1-4799-6870-1.

*Proceedings of ICDSE 2012*: Published by IEEE (2012) ISBN: 978-1-4673-2146-4.

*Contemporary Trends in Software Engineering*: (Edited Volume) Published by Directorate of Public Relations and Publications, Cochin University (2010) ISBN: 978-83-800095-09-7.

[INTERNATIONAL JOURNALS] *Reconstruction of gene regulatory networks using graph neural networks*, **Applied Soft Computing**, Elsevier, 2024

*EfficientPolypSeg: Efficient Polyp Segmentation in colonoscopy images using EfficientNet-B5 with dilated blocks and attention mechanisms*, **Biomedical Signal Processing and Control**, Elsevier, Vol. 1(01), pp. 106210, 2024

*Geo-political bias in fake news detection AI: the case of affect*, **AI and Ethics**, Springer, 2024

*Dual Encoder Decoder Shifted Window-Based Transformer Network for Polyp Segmentation with Self-Learning Approach*, **IEEE Transactions on Artificial Intelligence**, IEEE, Vol. 1(01), pp. 1-14, 2024

*Novel abstraction methods for TDMA based MAC protocols: case of IIoT MAC wireless HART verification*, **Telecommunication Systems**, Springer, Vol. 85 (1), pp. 125-150, 2024

*Formal Verification of a MAC Protocol for Underwater Sensor Networks*, **IEEE Access**, Vol. 11, pp. 111846-111859, 2023

*Formal modeling of the gPTP clock synchronization algorithm in automotive ethernet*, **Innovations in Systems and Software Engineering**, Springer, Vol. 19(3), pp. 265-281, 2023

*Formal Modelling and Verification of the Clock Synchronization Algorithm of FlexRay*, **Defense Science Journal**, Vol. 73(1), pp. 41-50, 2023

*Malayalam Natural Language Processing: Challenges in Building a Phrase-Based Statistical Machine Translation System*, **ACM Transactions on Asian and Low-Resource Language Information Processing**, ACM, Vol.22(4), pp 1-51, 2023

*Abstracting IoT protocols using timed process algebra and SPIN model checker*, **Cluster Comput-**

ing, Springer, Vol. 26(2), 1611-1629, 2023

*Identification of Crowd Behaviour Patterns Using Stability Analysis*, **Journal of Intelligent & Fuzzy Systems**, IOS Press, Vol. 42(4), pp. 2829-2843, 2022

*Generic Methodology for Formal Verification of UML Models*, **Defense Science Journal**, Vol. 72(1), pp. 40-48, 2022

*Abnormal Crowd Behaviour Detection Using Parallel Deep Neural Networks*, **Journal of Information Science and Engineering**, Institute of Information Science, Academia Sinica, Vol. 37(2), pp. 337-346, 2021

*Learning in the presence of concept recurrence in data stream clustering*, **J Big Data**, Springer Nature, 7, 75, 2020 (In Press)

*Machine Learning Approach to Suffix Separation on a Sandhi Rule Annotated Malayalam Data Set*, **South Asia Research**, Sage Journals, Vol. 40 (2), pp. 231-249, 2020

*Concept Drift Detection in Data Stream Clustering and its Application on Weather Data*, **Int. J. Agricultural and Environmental Information Systems**, IGI Global Publishing, Vol. 11 (1), pp. 67 - 85, 2020

*Methodology for Integrating Computational Tree Logic Model Checking in Unified Modelling Language Artefacts A Case Study of an Embedded Controller*, **Defence Science Journal**, Vol. 69 (1), pp. 58 - 64, 2019

*Mining spatial colocations from image-objects: A tensor factorization approach*, **J. Intelligent and Fuzzy Systems**, IOS Press, Vol. 37 (5), pp. 6707-6716, 2019

*Change Detection in Urban landscapes: a tensor factorization approach*, **Spat.Inf.Res**, Springer, Vol. 27 (5), pp. 587 - 600, 2019

*Verb Phrases Alignment Technique for English-Malayalam Parallel Corpus in Statistical Machine Translation*, **Journal of Intelligent Systems**, De Gruyter, Vol. 28 (3), pp. 479 - 492, 2019

*Secret Image Sharing Based Cheque Truncation System with Cheating Detection*, **International Journal on Information Processing**, I K International, 8(4) pp. 1 - 11, 2014

*Using Open Source Software for Digital Libraries: A Case Study of CUSAT*, **The Electronic Library**, The international journal for the application of technology in information environments, Emerald Publishing, 31(2) pp. 217 - 225, 2013

*Image Mining Prototype to Achieve Medical Image Diagnosis with Effectiveness*, **International Journal on Information Processing**, I K International, 6(2) pp. 38 - 47, 2012

*Representation and Analysis of DNA Sequences using Fractal Method*, **International Journal on Information Processing**, 5(1) pp. 33 - 40, 2011

*Energy Aware Cluster-based Multihop Routing Protocol for Sensor Networks*, **International Journal on Information Processing**, 4(3) pp. 9 - 16, 2010

*Service Oriented Architecture for Retrieving Data from Wireless Sensor Networks*, **International Journal on Information Processing**, 3(4) pp. 33 - 40, 2009

*Squeezed coherent state representation of scalar field and particle production in the early universe*, **International Journal of Theoretical Physics**, 39 (2) pp. 351-360, 2000

[BOOK CHAPTERS] *A Framework for Monitoring Clustering Stability Over Time*, Advances in Intelligent Systems and Computing, Springer, Vol. 882 pp. 467 - 477, May (2019)

*Spatiotemporal Ontology for understanding Semantics in Change Patterns of Remote Sensing Images*, Lecture Notes in Networks and Systems, Springer 2018, ISBN: 978-981-13-2323-2.

*Automatic Multilabelling of Images and Semantic Relation Extraction*, (Book Chapter) Digital Image and Signal Processing, Elsevier 2014, ISBN: 978-9-3510-7252-2.

*An Improved E-Voting Scheme using Secret Sharing based Secure Multi Party Computation*, (Book Chapter) Computer Communication Networks, Elsevier 2014, ISBN: 978-9-3510-7253-9.

*Establishing Security in Cheque Truncation System using Secret Image Sharing*, (Book Chapter) Computer Communication Networks, Elsevier 2014, ISBN: 978-9-3510-7253-9.

*Interestingness Analysis of Semantic Association Mining in Medical Images*, (Book Chapter) Computer Networks and Intelligent Computing, Springer 2011, Volume 157, Part 1, 1-10,

DOI: 10.1007/978-3-642-22786-8\_1

*Authentication in Wireless Sensor Networks Using Zero Knowledge Protocol*, (Book Chapter) Computer Networks and Intelligent Computing, Springer 2011, Volume 157, Part 1, 416-421,

DOI: 10.1007/978-3-642-22786-8\_52

*Semantic Association Mining on Spatial Patterns in Medical Images*, (Book Chapter) Advances in Computing and Communications, Springer 2011, Volume 191, Part 5, 263-272,

DOI: 10.1007/978-3-642-22714-1\_28

*Virtualization Techniques: A Methodical Review of XEN and KVM*, (Book Chapter) Advances in Computing and Communications, Springer 2011, Volume 190, Part 5, 399-410,

DOI: 10.1007/978-3-642-22709-7\_40

*Improving Energy Efficiency of Underwater Acoustic Sensor Networks Using Transmission Power Control: A Cross-Layer Approach*, (Book Chapter) Advances in Computing and Communications, Springer 2011, Volume 192, Part 2, 93-101,

DOI: 10.1007/978-3-642-22720-2\_9

*Alignment Model and Training Technique in SMT from English to Malayalam*, (Book Chapter) Contemporary Computing Communications in Computer and Information Science, Springer 2010, Volume 94, Part 6, 305-315,

DOI: 10.1007/978-3-642-14834-7\_29

[INTERNATIONAL  
CONFERENCES]

*PolySegNet: Improving Polyp Segmentation through Swin Transformer and Vision Transformer Fusion*, **IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)**, 2024, Waikoloa, HI, CORE rank A

*Self-supervised animal detection in constrained environment*, **VUA workshop of BMVC 2023**, Aberdeen, Scotland, UK, CORE rank A

*Tracking-by-Self Detection: A Self-supervised Framework for Multiple Animal Tracking*, **IFIP International Conference on Artificial Intelligence Applications and Innovations**, University of León, Spain , Springer, 2023

*A Performance and Power Characterization study of Memorization and Tabulation methods in Graph Neural Networks by assessing Dynamic Programming Workloads*, ICITISEE 2022, Universitas Amikom Yogyakarta, Indonesia, 2022.

*LGCM: A Communication-Efficient Scheme for Federated Learning in Edge Devices*, INDICON 2022, Cochin University, Kerala, 2022.

*Automatic Formal Model Generation from UML Diagrams—An Implementation Experience*, 2022 IEEE Delhi Section Conference (DELCON), 2022.

*BiLSTM-Autoencoder Architecture for Stance Prediction*, International Conference on Data Science and Engineering, Cochin University, 2020.

*CUSUM based concept drift detector for data stream clustering*, International Conference on Big Data and Internet of Things, 2020.

*Change Analysis of Indian Metropolitan Cities through a Spatiotemporal Ontology*, **2019 ICDSE**, pp. 21 - 25, September 26 (2019), IIT Patna, India.

*Enhanced Fast Retina Keypoint Descriptor*, **2017 IEEE TENCON**, pp. 1493 - 1498, November 5 - 8 (2017), Penang, Malaysia

*A Framework for the prediction of the performance of IoT protocols, a Use Case based approach*, **International Conference on Smart Technologies for Smart Nation**, August 17 - 19 (2017), REVA University, Bangalore, India (to appear in IEEEExplore)

*Analysis of the Smart Growth of Kochi City through Landscape Metrics*, **2017 IEEE Region 10 Symposium (TENSYP)**, pp. 1-5, Kochi, July 14 - 16 (2017)

*Direction Estimation of crowd flow in Surveillance Videos*, **2017 IEEE Region 10 Symposium (TENSYP)**, pp. 1-5, Kochi, July 14 - 16 (2017)

*Inter-Spectral and Intra-Spectral Features for Effective Classification of Remotely Sensed Images*, **Procedia Computer Science**, Elsevier, Vol. 115, pp. 549 - 555, 2017

*Modelling and Verification of CoAP over Routing Layer Using SPIN Model Checker*, **Procedia Computer Science**, Elsevier, Vol. 93, pp. 299 - 308, 2016

*Modeling and verification of timed automaton based hybrid systems using spin model checker*, **2016 IEEE Annual India Conference (INDICON)**, Bangalore, pp. 1-8, December 16 - 18 (2016)

*Detection of similar community in large network based on graph edit distance*, **2016 International Conference on Data Science and Engineering (ICDSE)**, Cochin, pp. 1-5, August 23 - 25 (2016)

*User characterization through network flow analysis*, **2016 International Conference on Data Science and Engineering (ICDSE)**, Published by IEEE, pp. 1-6, August 23 - 25 (2016)

*Dynamic power profile estimation of interconnected smart objects*, **2015 IEEE Recent Advances in Intelligent Computational Systems (RAICS)**, Trivandrum, pp. 394-399, December 10 -12 (2015)

*A Hierarchical Framework for the Classification of Multispectral Imagery*, **Procedia Computer Science**, Elsevier, Vol. 46, pp. 78 - 85, 2015

*Rainfall Prediction using Artificial Neural Network on Map-Reduce Framework*, **Third International Symposium on Women in Computing and Informatics (WIC 2015)**, ACM Digital Library, pp. 492-495, Aug 10-13, (2015)

*An effective private data storage and retrieval system using secret sharing scheme based on secure multi-party computation*, **2014 International Conference on Data Science and Engineering (ICDSE)**, Published by IEEE, pp. 210-214, Aug 26 - 28, (2014)

*Fault tolerant state management for high-volume low-latency data stream workloads*, **2014 International Conference on Data Science and Engineering (ICDSE 14)**, pp. 24-27, Published by IEEE, Aug 26-28, (2014)

*Classification based land use/land cover change detection through Landsat images*, **2014 International Conference on Data Science and Engineering (ICDSE 14)**, pp. 24-27, Published by IEEE, Aug 26-28, (2014)

*Association rule extraction from medical transcripts of diabetic patients*, **2014 Fifth International Conference on the Applications of Digital Information and Web Technologies (ICADIWT 14)**, pp. 201-206, Published by IEEE, Feb 17-19, (2014)

*Analytical Study of Typographical Errors in OPACS and Corrective Measures*, **9th International CALIBER**, Gandhinagar, Gujrat, India, March 21-23, (2013)

*Automatic image annotation using SURF descriptors*, **Annual IEEE India Conference (INDICON)**, pp. 920-924, Published by IEEE, Dec 7-9, (2012)

*Implementation and evaluation of an improved header compression for 6LoWPAN*, **Annual IEEE India Conference (INDICON)**, pp. 439-443, Published by IEEE, Dec 7-9, (2012)

Real time recognition of pedestrian and vehicles from videos, Proceedings of the Second International Conference on Computational Science, Engineering and Information Technology (CCSEIT '12), pp. 517-523, Published by ACM, Oct 26-28, (2012)

Extension Schemes for the Alignment Model of English-Malayalam Statistical Machine Translator, Proceedings of the 2012 International Conference on Advances in Computing and Communications (ICACC), pp 86 - 89, Published by IEEE, Aug 9-11, (2012)

An Improved Color Video Super-Resolution Using Kernel Regression and Fuzzy Enhancement, Proceedings of the 2012 International Conference on Advances in Computing and Communications



(ICACC), pp 114 - 117, Published by IEEE, Aug 9-11, (2012)

Integrated environment for launch vehicle telemetry data management, Proceedings of the 2012 International Conference on Data Science and Engineering (ICDSE), pp 171-174, Published by IEEE, Jul 18-20, (2012)

Ontology based framework for news extraction in visual media, Proceedings of the 2012 International Conference on Data Science and Engineering (ICDSE), pp 220 - 222, Published by IEEE, Jul 18-20 (2012)

RMAC-M: Extending the R-MAC protocol for an energy efficient, delay tolerant underwater acoustic sensor network application with a mobile data mule node, 2011 International Symposium on Ocean Electronics (SYMPOL), pp 217 - 223, Published by IEEE, Nov 16-18, (2011)

English to Malayalam translation: a statistical approach, Proceedings of the 1st Amrita ACM-W Celebration on Women in Computing in India(A2CWIC 10), pp 64:1-64:5, Published by ACM, Sept 16-18, (2010)

Alignment Model and Training Technique in SMT from English to Malayalam, 3rd International Conference on Contemporary Computing (IC3 2010), Published in Communications in Computer and Information Science ISSN: 1865-0929, Springer, JIIT University, Noida, India, August 09 – 11 (2010)

EHMRP : An Energy-Efficient Routing Protocol for Wireless Sensor Networks, International Conference on Information Processing (ICIP2010), UVCE, Bangalore, Karnataka, India, August 06 -08 (2010)

A Framework of Statistical Machine Translator from English to Malayalam, International Conference on Information Processing (ICIP2010), UVCE, Bangalore, Karnataka, India, August 06 -08 (2010)

Fractal Method for Analysis of DNA Sequences, International Conference on Information Processing (ICIP2010), UVCE, Bangalore, Karnataka, India, August 06 -08 (2010)

Moving Object Detection Algorithms: A Systematic Survey, CSI Communications, 33(11) pp. 31 - 35, February 2010

DNA Sequence Representation Methods, International Symposium on Biocomputing (ISB 2010) ACM Conference, NIT Calicut, Kerala, India, February 15-17(2010)

Safe Contiki OS: Type and Memory Safety for Contiki OS, International Conference on Advances in Recent Technologies in Communication and Computing (ARTCom 2009) Published in IEEEExplore, Kottayam, Kerala, India, October 27-28(2009)

Modeling of ALFA Programs Using PVS Theorem Prover, International Conference on Advances in Recent Technologies in Communication and Computing (ARTCom 2009) Published in IEEEExplore, Kottayam, Kerala, India, October 27-28(2009)

Service Oriented Architecture for Data Retrieval from WSNs, International Journal on Information Processing, 3(4) pp. 33 - 44, 2009

Voting based Clustering Scheme for Energy Efficient Routing in Sensor Networks, International Conference on Information Processing (ICIP2008), UVCE, Bangalore, Karnataka, India, August 07 -09 (2009)

Safe Contiki OS, 2nd International Conference on Education and Research, Rajagiri School of Engineering and Technology, Kochi, Kerala, India, March 11-14 (2009)

Formal Verification of programs in ADA language for flight software application, 2nd International Conference on Education and Research, Rajagiri School of Engineering and Technology, Kochi, Kerala, India, March 11-14 (2009)

An Energy Aware Load Balanced Clustering Scheme for Sensor Networks, National Conference on Computational Science and Engineering, Rajagiri School of Social Sciences, Kochi, Kerala, India, February 6-7 (2009)

Analysis of COX-3 Gene and Phylogeny Construction, National Conference on Computational Science and Engineering, Rajagiri School of Social Sciences, Kochi, Kerala, India, February 6-7 (2009)

Mobility Metric based LEACH-Mobile Protocol. 16th International Conference on Advanced Computing and Communications (ADCOM 2008), Published by IEEE , Anna University, Chennai, India, December 14-17 (2008)

Routing Protocol Enhancement for handling Node Mobility in WSNs. IEEE TENCON 2008, University of Hyderabad, Hyderabad, India, November 18-21 (2008)

Service Oriented Architecture for Data Retrieval from WSNs. International Conference on Information Processing (ICIP2008), UVCE, Bangalore, Karnataka, India, August 08 -11 (2008)

Motion Segmentation and Meanshift Assisted Contour Refinement for Airborne Video. IADIS International Conference on Computer Graphics and Visualization 2008, Amsterdam, The Netherlands, July 24-26 (2008)

Impact of Node Mobility on the Performance of Wireless Sensor Networks. International Conference on Sensors and Related Networks (SENNET '07), VIT University, Vellore, Tamil Nadu, India, December 12 – 14 (2007)

Maritime Sea Surveillance Using Sensor Networks. International Symposium on Ocean Electronics (SYMPOL '07), Cochin University of Science and Technology, Cochin, Kerala, India, December 11 – 14 (2007)

An Energy Efficient Tree based Adaptive Routing Protocol for Wireless Sensor Networks. International Conference on Information Processing (ICIP2007), UVCE, Bangalore, Karnataka, India, August 10 -12 (2007)

MAC Protocols for Static and Mobile Wireless Sensor Networks: A Survey. International Conference on Information Processing (ICIP2007), UVCE, Bangalore, Karnataka, India, August 10 -12 (2007)

CIBLA – A Localization Algorithm for Wireless Sensor Networks. International Conference on Embedded Systems, Mobile Communication and Computing (ICEMC22007), PESIT, Bangalore, Karnataka, India, August 3-5 (2007)

Development of a Knowledge Management Model in a Multidisciplinary Software Development Environment using Transfer Function approach. International Conference on Global Software Development (ICGSD 07), PSG College of Technology, Coimbatore, TamilNadu, India, July 26 – 28 (2007)

A Generic Software Architecture for a Domain Specific Distributed Embedded System. International Conference on Software Engineering, Theory and Practice (SETP 07), Orlando, FL, USA, July 9-12

(2007)

Evaluation of the Power Consumption of Routing Protocols for Wireless Sensor Networks. Proceedings of the International Symposium on Ad-Hoc and Ubiquitous Computing, Published by IEEE, NITK, Surathkal, India, December 20-23 (2006)

Development of Teacher and Content for effective e-learning practices. Proceedings on International Workshop on E-Learning, Common Wealth of Learning & CUSAT, Cochin, Kerala, India, September 15-27 (2006)