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## LIST OF PUBLICATIONS

### International Journals

1. **Anju S Pillai**, G Sarath Chandra Prasad, Ahmed S. Khwaja and Alagan Anpalagan, "A Service Oriented IoT Architecture for Disaster Preparedness and Forecasting System," J. of Internet of Things, Elsevier, 2019.
2. Ranjith, R., **Pillai, A.S.** "Classification of activities of daily living using smart phones," International Journal of Recent Technology and Engineering, 2019, 8(3), pp. 2984-2988.
3. Viknesh, M.R., Swaminathan, J., Mahakaleshwar, P., **Pillai, A.S.** "Automatic e-ticketing and vehicle parking system," International Journal of Innovative Technology and Exploring Engineering, 2019, 9(1), pp. 2770-2773.
4. Mohan, S., **Pillai, A.S.**, Sara, D. "Real-time task simulator for scheduling," International Journal of Recent Technology and Engineering, 2019, 7(ICETESM18), pp. 46-49.
5. **Anju S Pillai**, Kaumudi Singh, Vijayalakshmi Saravanan, Alagan Anpalagan, Woungang Isaac, Barolli Leonard, "A genetic algorithm-based method for optimizing the energy consumption and performance of multiprocessor systems," Journal of Soft Computing, August 29, 2017.
6. Srinath L., **Anju S. Pillai**, "Adaptive interplay of DVS and DPM for power consumption reduction in embedded processors," *Indian Journal of Science and Technology, Indian Society for Education and Environment*, vol.9, no.30, 2016.
7. Manigandan R, **Anju S. Pillai**, "Critical Section-aware Immediate Ceiling Priority Protocol with Dynamic Frequency Scaling," *Indian Journal of Science and Technology, Indian Society for Education and Environment*, vol.9, no.30, 2016.
8. V. Praveen, **Anju S. Pillai**, "Modeling and Simulation of Quadcopter using PID Controller," *International Journal of Control Theory and Applications*, vol.9, no.15, pp.7175-7158, 2016.
9. **Anju S. Pillai**, T.B. Isha, "Laboratory Resource Management System with Intelligent Power-Aware Strategies: A Software Approach," *Journal of Circuits, Systems and Computers, World Scientific Publishers*, vol. 24, no. 10, September 2015.
10. **Anju S. Pillai**, T.B. Isha, "A Quantitative Study Based On Direct Measurement On Embedded Processors Limiting Context Switches For Energy Saving", *Journal of Engineering Science and Technology*, vol.10, no.10, pp.1372-1393, Oct.2015.
11. **Anju S. Pillai**, T.B. Isha, "Energy Efficient Task Allocation and Scheduling in Distributed Homogeneous Multiprocessor Systems", *WSEAS Transactions on Computers*, ISSN/E-ISSN: 1109-2750/2224-2872, vol.13, 2014, Art. #55, pp. 613-623. 2014.
12. **Anju S. Pillai**, T.B. Isha, "*Ec-A*: A Task Allocation Algorithm for Energy Minimization in Multiprocessor Systems", *International Journal of Computer, Information Science and Engineering, World Academy of Science, Engineering and Technology*, vol.8, no.1, pp.254-260, April 2014.
13. **Anju S. Pillai**, T.B.Isha, "Dynamic Frequency Scaling Based Energy Consumption Reduction for Power-aware Embedded Systems - A Simulation and Experimental Approach," *International Journal of Electrical Systems*, vol.10, no.1, pp-36-47, February 2014.

14. **Anju S. Pillai**, T. B. Isha, "Factors Causing Power Consumption in an Embedded Processor - A Study", *International Journal of Application or Innovation in Engineering & Management*, vol. 2, no.7, pp.300-306, July 2013.
15. Muthu Kumar. B, **Anju S. Pillai**, "Minimal Task Allocation in Multiprocessors using Improved Next-fit for RM Scheduling" *International Journal of Computer Applications*, vol.47, no.19, pp. 39-44, June 2012.
16. Arya Paul, **Anju S. Pillai**, "Reduction of Context Switches due to Task Synchronization in Uniprocessor and Multiprocessor Platforms", *International Journal of Computer and Communication Technology*, vol.2, no.8, 2011.
17. Arya Lekshmi Mohan, **Anju S. Pillai**, "Dynamic Voltage Scaling with Reduced Frequency Switching And Preemptions", *International Journal of Electrical and Electronics Engineering*, vol.1, no.1, 2011.

## International Conferences

1. Radhakrishnan, N., **Pillai, A.S.**, "Comparison of water quality classification models using machine learning," Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020, 2020, pp. 1183-1188, 09137903
2. Pradeep Kumar, V., **Pillai, A.S.**, "Dynamic Scheduling Algorithm for Automotive Safety Critical Systems," Proceedings of the 4th International Conference on Computing Methodologies and Communication, ICCMC 2020, 2020, pp. 815-820, 9076549.
3. Savithry, J., Ortega, A.G., **Pillai, A.S.**, Balbastre, P., Crespo, A."Design of Criticality-Aware Scheduling for Advanced Driver Assistance Systems," IEEE International Conference on Emerging Technologies and Factory Automation, ETFA, 2019-September, pp. 1407-1410, 8868957.
4. Faizan, M., **Pillai, A.S.** "Dynamic Task Allocation and Scheduling for Multicore Electronics Control Unit (ECU)," Proceedings of the 3rd International Conference on Electronics and Communication and Aerospace Technology, ICECA 2019, 2019, pp. 821-826, 8822086.
5. Dhandha, A., **Pillai, A.S.** "Performance Evaluation of Primary Backup Fault Tolerant Scheduling for Single Processor Systems," Proceedings of the 2nd International Conference on Intelligent Computing and Control Systems, ICICCS 2018, 2019, pp. 866-871, 8663173.
6. Prasad, G.S.C., **Pillai, A.S.** "Role of Industrial IoT in Critical Environmental Conditions," Proceedings of the 2nd International Conference on Intelligent Computing and Control Systems, ICICCS 2018, 2019, pp. 1369-1372, 8663213.
7. Lashmi, K., **Pillai, A.S.** "Ambient Intelligence and IoT Based Decision Support System for Intruder Detection," Proceedings of 2019 3rd IEEE International Conference on Electrical, Computer and Communication Technologies, ICECCT 2019, 2019, 8869327.
8. O. Motaghare, **A. S. Pillai** and K. I. Ramachandran, "Predictive Maintenance Architecture," 2018 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC), Madurai, India, 2018, pp. 1-4, doi: 10.1109/ICCIC.2018.8782406.
9. J. Savithry and **A. S. Pillai**, "Towards Mixed-Critical Real-time Scheduling," 2018 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC), Madurai, India, 2018, pp. 1-4, doi: 10.1109/ICCIC.2018.8782407.
10. Shyama M, Anju S. Pillai, "Fault Tolerant Technique for Wireless Sensor Networks," *International Conference on Innovation in Electronics and Communication Engineering (ICIECE'18)*, Springer, 27-28<sup>th</sup> July 2018.
11. Prasad, Gaddam & **Pillai, Anju**. "Role of Industrial IoT in Critical Environmental Conditions," 1369-1372, 2018, 10.1109/ICCONS.2018.8663213.
12. Yokita, C & Somasundaran, Nithin & **Pillai, Anju**. "Development of a Battery Monitoring and Control Unit Aiding Utilities in Demand Side Management," 1325-1329, 2018, 10.1109/ICIRCA.2018.8597277
13. S. Paranjape and **A. S. Pillai**, "Optimal workload allocation for performance evaluation on multi-core automotive ECUs," 2017 International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT), Kannur, 2017, pp. 685-690, doi: 10.1109/ICICICT1.2017.8342646.
14. Manjunath P.K., Sri Janani R, **Anju S Pillai**, "OpenCPU Platform for IoT Applications – A Study," IEEE Biennial International Conference on Technological Advancements in Power & Energy, Amrita School of Engineering, Amritapuri, Kerala, Dec. 2017.

15. Varahagiri Ramya, Manjunath P.K., **Anju S. Pillai**, "Fast Context Switches: Interrupt Driven Scheduler for ARM Cortex Platforms," 4th International Conference on Advances in Computer Science and Engineering, Hyderabad, July 2017.
16. Sri Janani, Manjunath P.K., **Anju S. Pillai**, "Power of CLZ Instruction in Numerical Computation," International Conference on Computation of Power, Energy Information and Communication (ICCPEIC), Adhiparasakthi Engineering College, Tamilnadu, March 2017.
17. Flemin Jose, **Anju S. Pillai**, "Code Configuration Tool for Real Time Systems," International Conference on Computation of Power, Energy Information and Communication (ICCPEIC), Adhiparasakthi Engineering College, Tamilnadu, March 2017.
18. Thota Narendrakumar and **Anju S Pillai**, "Smart Connected Campus," IEEE International Conference on Intelligent Computing, Instrumentation And Control Technologies (ICICICT), Vimal Jyothi Engineering College, Kerala, July 2017.
19. Sneha Paranjape and **Anju S. Pillai** "Optimal Workload Allocation for Performance Evaluation on Multi-core Automotive ECUs," IEEE International Conference On Intelligent Computing, Instrumentation And Control Technologies (ICICICT), Vimal Jyothi Engineering College, Kerala, July 2017.
20. Aravind Krishnan B. and **Anju S. Pillai**, "Digital Sensor Simulation Frame Work for Hardware-in-the-loop Testing," IEEE International Conference On Intelligent Computing, Instrumentation And Control Technologies (ICICICT), Vimal Jyothi Engineering College, Kerala, July 2017.
21. Sunu S. Babu, **Anju S. Pillai**, "Design and Implementation of Two-wheeled self-balancing vehicle using accelerometer and Fuzzy logic," *Second International Conference on Computer and Communication Technologies, Advances in Intelligent Systems and Computing*, Springer India, pp.45-53, September 2015.
22. **Anju S. Pillai**, T.B. Isha, "A Power-aware Multiprocessor Based Laboratory Automation and Resource Management System", *IEEE International Conference on Computational Intelligence and Computing Research (IEEE ICCIC)*, Parks Engineering College, Karumathampatti, Coimbatore, India, pp.1219-1222, Dec 18-20, 2014.
23. Narayan S., Prasannakumar T.V., Prasanth M., Praveen Velavan N, **Anju S. Pillai**, Praveen Kumar N., "A Priority Based Exploration Algorithm for Path Planning of an Unmanned Ground Vehicle", *International Conference on Embedded Systems (ICES)*, Amrita Vishwa Vidyapeetham, Coimbatore, India, July 3-5, 2014
24. Kaumudi Singh, **Anju S. Pillai**, "Schedule Length Optimization by Elite-Genetic Algorithm using Rank Based Selection for Multiprocessor Systems", *International Conference on Embedded Systems (ICES)*, Amrita Vishwa Vidyapeetham, Coimbatore, India, July 3-5, 2014.
25. Ram Prasad N, **Anju S. Pillai**, "Measurement of Current and Power Consumption in the Order of Milli-Watt Resolution in Processor Core Level", *International Conference on Circuit, Power and Computing Technologies (ICCPCT)*, Noorul Islam College of Engineering, Kumaracoil, Kanyakumari district, Tamilnadu, India, pp.1733-1736, 20<sup>th</sup> and 21<sup>st</sup> March 2014.
26. **Anju S. Pillai**, T.B. Isha, "Optimal Task Allocation and Scheduling for Power Saving in Multiprocessor Systems", *Power and Energy Systems Conference: Towards Sustainable Energy (PESTSE)*, Amrita Vishwa Vidyapeetham, Amrita School of Engineering, Bangalore, India, pp.1-5, March, 2014.
27. **Anju S. Pillai**, T.B. Isha, "ERTSim: An Embedded Real-time Task Simulator for Scheduling," *IEEE International Conference on Computational Intelligence and Computing Research (ICCIC)*, Vickram College of Engineering, Madurai, India, Dec. 26-28, pp.724-727, 2013.
28. **Anju S. Pillai**, T. B. Isha, Sasikumar Punnekkat "Energy Minimization in Real Time Embedded Systems by Control of Context Switches", *Pro. of Second International Conference on Smart Technologies for Materials, Communication, Controls, Computing and Energy (ICST)*, Vel Tech Dr. RR & Dr. SR Technical University, Chennai, India, January 3-5, pp. 428-432, 2013.
29. **Anju S. Pillai**, T. B. Isha, "A New Real Time Simulator for Task Scheduling", *Proc. of IEEE International Conference on Computational Intelligence and Computing Research (ICCIC)*, Tamilnadu College of Engineering, Coimbatore, India, Dec 18-20, pp. 203-206, 2012.
30. Arya Paul, **Anju S. Pillai**, "Reducing the Number of Context Switches in Real Time Systems", *International Conference of Process Automation, Control and Computing*, Coimbatore Institute of Technology, Coimbatore, India, July 2011.

31. Arya Lekshmi Mohan, **Anju S. Pillai**, “Dynamic Voltage Scaling for Power Consumption Reduction in Real-Time Mixed Task Model”, *International Conference on Computer Science Engineering and Applications*, Chennai, July 2011.
32. Abhilash Thekkilakattil, **Anju S. Pillai**, Radu Dobrin and Sasikumar Punnekkat, “Preemption Control using Frequency Scaling in Fixed Priority Scheduling,” *8<sup>th</sup> IEEE International Conference on Embedded and Ubiquitous Computing-IEEE/IFIP 2010*, Hong Kong SAR, China, December 11 to 13, 2010.
33. Abhilash Thekkilakattil, **Anju S. Pillai**, Radu Dobrin and Sasikumar Punnekkat, “Reducing the Number of Preemptions in Real Time Systems Scheduling by CPU Frequency Scaling”, *18<sup>th</sup> International Conference on Real-Time and Network Systems*, Toulouse, France, November 4 to 5, 2010.
34. Abhilash Thekkilakattil, **Anju S Pillai**, Vijayalakshmi Saravanan and Huseyin Aysan, “Eureka: A Team of Autonomous Mobile Agents Competing in CyberRescue 2009,” RTSS 2009, *The 30<sup>th</sup> IEEE Real-Time Systems Symposium*, The Fairmont Hotel, Washington, D.C., USA. Dec.1-4, 2009.

### Book Chapters:

1. Shyama M., **Pillai, Anju S**, “Fault-Tolerant Techniques for Wireless Sensor Network—A Comprehensive Survey,” *Innovations in Electronics and Communication Engineering*, 2019, Springer Singapore.
2. Ranjith R., Krishna Prakash N., Prasanna Vadana D., **Pillai A.S.** “Smart Home Energy Management System—A Multicore Approach,”. In: Kamal R., Henshaw M., Nair P. (eds) *International Conference on Advanced Computing Networking and Informatics. Advances in Intelligent Systems and Computing*, vol 870, 2019, Springer, Singapore.
3. Arathi K., **Anju S. Pillai**, “Low-power Home Embedded Surveillance System Using Image Processing Techniques,” *Artificial Intelligence and Evolutionary Computations in Engineering Systems, Advances in Intelligent Systems and Computing, Proceedings of ICAIECES 2015, Springer India*, vol.394, pp.377-389, 2016.
4. Kaumudi Singh, **Anju S. Pillai**, “Energy Optimization of Embedded Processors using Genetic Algorithm”, *International Conference on Communication and Computing (ICC-2014)*, Elsevier Book Chapter, pp.237-245, June 12-14, 2014.

### Poster Presentation:

1. **Anju S. Pillai**, Vijayalakshmi Saravanan, Savithry J, “Partitioned Multicore Architecture for Xtractum Hypervisor-A Real-time Approach,” 6th Career Workshop for Women and Minorities in Computer Architecture, in conjunction with the 53rd IEEE/ACM International Symposium on Microarchitecture (MICRO-53) on 17th October 2020.
2. **Anju S Pillai**, Vijayalakshmi Saravanan, Kshirasagar Naik, “Power-aware IoT Devices for the Future,” The 15th ACM International Conference on Mobile Systems, Applications and Services, The 2nd MobiSys Women's Workshop, Niagara Falls, NY, USA, June 19, 2017.

## PROFESSIONAL ACTIVITIES

1. International Scientific Committee member for 2nd International Conference on Computer, Communications and Mechatronics Engineering (CCME2020), Xiamen, China, Dec. 2020.
2. Reviewer of IEEE Access journal
3. Organizing committee member of International Conference on Recent Trends in Multi-Disciplinary Research (ICRTMDR), 2019.
4. Member of chairs of International Conference on Mechanical, Electronic and Information Technology (MEIT2016), Phuket, Thailand, August 2016.
5. Member in National Editorial and Review Board member of Journal of Management Research and Analysis, Innovative Publication.

6. Co-ordinator for organizing a 4-Day Workshop on Embedded LINUX on Beagle Bone Black organized for M.Tech. Embedded Systems students of Amrita school of Engineering from 4-5 and 11-12 August 2018.
7. Organizing Chair for two days International Workshop with hands-on sessions on Advanced Control System Design organized by Electrical & Electronics Engineering Department, Amrita School of Engineering in collaboration with University of Pardubice in Czech Republic., Coimbatore from 4-5<sup>th</sup> December 2017
8. Attended 9<sup>th</sup> IEEE PES Asia-Pacific Power and Energy Engineering Conference organized by IEEE Power and Energy Society (IEEE PES) in Asia-Pacific Region, Le Meridian, Bangalore, November 8-10, 2017.
9. Co-ordinator for “4-Day Workshop on LINUX Internals & Embedded LINUX on Beagle Bone Black” held from 5-8, August 2016 organized by Electrical Engineering department of Amrita School of Engineering, Coimbatore.
10. Co-ordinator for Two Day Workshop on Embedded Application Development using ARM Microcontroller, organized by Department of Electrical and Electronics Engineering, ASE, Coimbatore on 23, 24 September 2016.
11. Resource person for “Workshop on Computational Thinking for Electric Applications using MATLAB,” organized by Electrical Engineering department of Amrita University, Coimbatore, 2 March 2016.
12. Department Co-ordinator for Research Symposium conducted by Amrita School of Engineering on 26<sup>th</sup> August 2016.
13. Member of organizing committee and in-charge for managing a session on International conference on Smart grid technologies, organized by Amrita School of Engineering, Coimbatore ICSGT-2015 during 6-8 August 2015.
14. Organizer and handled a session on “Knowledge Empowerment Workshop on PIC Microcontrollers,” organized by Electrical Engineering department of Amrita School of Engineering, Coimbatore, 7-8 September 2015.
15. Session co-chair for the track ‘Embedded Systems for Smart Grids,’ International conference on Smart grid technologies, organized by Amrita School of Engineering, Coimbatore ICSGT-2015 during 6-8 August 2015.
16. Resource person for Faculty Development Programme on PIC microcontrollers organized by Electrical Engineering department of Amrita Vishwa Vidyapeetham University, Coimbatore, India, June 2015.
17. Organized 3-Day Workshop on LINUX Basics, Embedded LINUX & Beagle Bone Black at Amrita Vishwa Vidyapeetham University, Coimbatore, India, 10-12, January 2015.
18. Steering committee member and session chair for *International Conference on Embedded Systems, ICES’14*, Amrita Vishwa Vidyapeetham University, Coimbatore, India, July 2014.