**PROFIL LAB. ELEKTRONIKA DAN DIVAIS**

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| **PROGRAM STUDI TEKNIK ELEKTRO** | | | | |
| **Laboratorium**  **Staff** | **Elektronika dan Divais** | | | |
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| **Kerjasama Penelitian 5 Tahun Terakhir** | PT. Industri Telekomunikasi Indonesia (PT. INTI) | | | Skema Kerjasama: Penelitian Unggulan Strategis Nasional (PUSNAS) |
| PT. PLN Corporate University - Renewable Energi Academy | | | Skema Kerjasama: Penelitian Unggulan Perguruan Tinggi (PUPT) |
| **Road map Penelitian** |  | | | |
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| **Pengujian, Standar pengujian dan Foto peralatan** | High Performance Embedded System Testing (Mixed-Signal Analog/Digital Measurement) | |  | |
| Electronic Design Testing, Analog/Digital Signal Analyzer | |  | |
| PCB Assembly Workshop | |  | |
| Embedded System Design and Prototyping | |  | |
|  | Power Electronics and Motor Control System Design and Testing | |  | |
| **Publikasi Seminar & Jurnal Internasional** | 1. Faizal A. Samman, Ma’arif Hasan, Tirza Damayanti. “Side Effects of Damping Element Insertion in LCL Filter for DC/AC Inverter”. International Journal of Power Electronics and Drive Systems (IJPEDS) Vol. 8, No.1, March. 2018. 2. Faizal A. Samman, Abd. Azis Rahmansyah, Syafaruddin. “Peak Bracketing and Decremented Window-Size Scanning-Based MPPT Algorithms For Photovoltaic Systems”, in publishing process for 2018 in International Journal of Innovative Computing, Information and Control (IJICIC). 3. Syafaruddin, Faizal A. Samman, Muslimin and Satriani Latief. “Design of Automatic Control for Surface Cleaning Systems of Photovoltaic Panel”, ICICI Express Letter Part B: Applications, An International Journal of Research and Surveys, Volume 8, Issue 11, November 2017. DOI: 10.24507/icicelb.08.11.1457 ISSN: 1349-4198. 4. Faizal A. Samman, Thagiat Ahzan ADP, Fandhi Nugraha. “High Performance Asynchronous Bit-Level Parallel Interface for Board-to-Board Inter Processor Communication”. The 2017 International Conf. on Intelligent Technology and its applications (iSITIA), Surabaya, 28-29 August 2017. 5. Faizal A. Samman, Ma’arif Hasan, Tirza Damayanti, Gassing. “Design and analysis of DC/AC inverter using passive LCL filter with damping circuit configuration”. The 2017 International Conf. on Intelligent Technology and its applications (iSITIA), Surabaya, 28-29 August 2017. 6. Faizal A. Samman, Abd. Azis Rahmansyah, Syafaruddin. “Iterative Decremented Step-Size Scanning-based MPPT Algorithms for Photovoltaic Systems”. The 2017 International Conference on Information Technology and Electrical Engineering (iCITEE), Phuket, Thailand, 13-15 October 2017. 7. Faizal A. Samman. "Network-on-Chip with Guaranteed-Bandwidth Data Communication Service", The 2016 International Conf. On Computational Intelligence and Cybernetics (Cyberneticscom 2016), Makassar, 22-24 November 2016. 8. Faizal A. Samman, Jonatan Antoni, Bjoern Dollak, Thomas Hollstein. "Architecture, On-Chip Network and Programming Interface Concept for Multiprocessor System-on-Chip". The 3rd International Conference on Smart Green Technology in Electrical and Information Systems (ICSGTEIS), Bali, 6-8 October 2016. 9. Faizal A. Samman, Arie Azhari. "DC/AC Power Converter for Home Scale Electricity Systems Powered by Renewable Energy". The 3rd International Conference on Smart Green Technology in Electrical and Information Systems (ICSGTEIS), Bali, 6-8 October 2016. 10. Syafaruddin, Faizal A. Samman, Alfian, M.A. Idris, S.H. Ahsan, S. Latief. "Characteristics approach of thin-film CIGS PV cells with conventional mono-crystalline silicon model", International Journal of Innovative Computing, Information and Control, vol. 12, no. 1, Feb. 2016, pages 171-180. 11. Faizal Arya Samman, Tajuddin Waris, Tiara Dwi Anugrah, and Muhammad Nuralim Zain Mide. “Three-phase Inverter Using Microcontroller for Speed Control Application on Induction motor”, in Proc of the 4th Makassar International Conference on Electrical Engineering and Informatics (MICEEI), in Makassar, Indonesia, Nov. 2014, ISBN: 978-1-4799-6725-4. 12. Faizal Arya Samman. “Network-on-Chip with an Arbitration Control for Balancing Throughputs in Multiprocessor Applications”, Proc of the 4th Makassar International Conference on Electrical Engineering and Informatics (MICEEI), in Makassar, Indonesia, Nov. 2014, ISBN: 978-1-4799-6725-4. 13. Faizal A. Samman, Thomas Hollstein. "Efficient and deadlock-free tree-based multicast routing methods for networks-on-chip (NoC)", Book Chapter: Routing Algorithms in Networks-on-Chip, editor: M. Palesi, M. Daneshtalab, Publisher: SPRINGER, 2014, doi: 10.1007/978-1-4614-8274-1\_6. 14. Faizal A. Samman. “Runtime Connection-Oriented Guaranteed-Bandwidth Network-on-Chip with Extra Multicast Communication Service”, Elsevier Science Journal, Microprocessors and Microsystems – Embedded Hardware Design, vol. 38, no. 2, March, 2014, pages: 170-181. ISSN: 0141-9331. 15. Faizal A. Samman, T. Hollstein, M. Glesner. “Runtime Contention- and Bandwidth-Aware Adaptive Routing Algorithms for Networks-on-Chip”. IEEE Transaction on Parallel and Distributed Systems, vol. 24, no. 7, Juli 2013, pages 1411-1421, ISSN: 1045-9219, doi: 10.1109/TPDS.2012.200. 16. Faizal A. Samman, Thomas Hollstein and Manfred Glesner. “Planar Adaptive Network-on-Chip Supporting Deadlock-Free and Efficient Tree-Based Multicast Routing Method”, Elsevier Science Journal, Microprocessors and Microsystems – Embedded Hardware Design, vol. 36, no. 6, pp. 449-461, Aug. 2012. ISSN: 0141-9331, doi: 10.1016/ j.micpro.2012.04.003. 17. Faizal A. Samman, Thomas Hollstein and Manfred Glesner. “Wormhole Cut-Through Switching: Flit-Level Messages Interleaving for Virtual-Channelless Network-on-Chip”, Elsevier Science Journal, Microprocessors and Microsystems – Embedded Hardware Design, vol. 35, no. 3, pp. 343-358, May 2011. ISSN: 0141-9331, doi: 10.1016/ micpro.2011.01.003. 18. Faizal A. Samman, Thomas Hollstein and Manfred Glesner. “New Theory for Deadlock-Free Multicast Routing for Virtual-Channelless Networks-on-Chip”, IEEE Trans. on Parallel and Distributed Systems, vol. 22, no. 4, pp. 544-557, April 2011. ISSN: 1045-9219, doi:10.1109/TPDS.2010.120. 19. Faizal A. Samman, Thomas Hollstein and Manfred Glesner. “Adaptive and Deadlock-Free Tree-based Multicast Routing for Networks-on-Chip”, IEEE Trans. on Very Large Scale Integration (VLSI) Systems, vol. 18, no. 7, pp. 1067-1080, July 2010. ISSN: 1063-8210, doi: 10.1109/TVLSI.2009.2019758. 20. Faizal A. Samman, Thomas Hollstein and Manfred Glesner. “Networks-on-Chip based on Dynamic Wormhole Packet Identity Management”, VLSI Design, Journal of Hindawi Publishing Corp., vol. 2009, pp. 1-15, Jan. 2009. ISSN: 1065-514X, doi: 10.1155/2009/ 941701. 21. Faizal A. Samman, Pongyupinpanich Surapong and Manfred Glesner. “Reconfigurable Streaming Processor Core with Interconnected Floating-Point Arithmetic Units for Multicore Adaptive Signal Processing Systems”, in Proc. the 6th Int'l Workshop on Reconfigurable Communication-centric Systems-on-Chip (ReCoSoC 2011), pages 310-315, in Montpellier, France, 20-22 June 2011. ISBN: 978-1-4577-0640-0, doi:10.1109/ ReCoSoC.2011.5981539. 22. Faizal A. Samman, Thomas Hollstein and Manfred Glesner. “Flexible Parallel Pipeline Network-on-Chip Based on Dynamic Packet Identity Management”, in Proc. of the 22nd Int'ernational Parallel and Distributed Processing Symposium (IPDPS'08), in Reconfigurable Architecture Workshop, pages 1-8, in Miami, Florida, USA, April 2008. ISBN: 978-1-4244-1693-6, doi: 10.1109/IPDPS.2008.4536513. 23. Faizal A. Samman, Thomas Hollstein and Manfred Glesner. “Multicast Parallel Pipeline Router Architecture for Network-on-Chip”, in Proc. of the 11th Design Automation and Test in Europe (DATE'08), pages 1396-1401, in Munich, Germany, March 2008. ISBN: 978-3-9810801-3-1, doi: 10.1109/DATE.2008.4484869. 24. A.Ejah Umraeni, Muh.Tola, Mery Selintung, Farouk Maricar,” Applocation Of SVM and ELM Methods to Predict Location and Magnitude Leakage of Pipelines on Water Distribution Network”, International Journal of Advanced Computer Research (IJACR). Vol.5. Issue 1, June 2015 25. A.Ejah Umraeni, Muh.Tola, Mery Selintung, Farouk Maricar,” Web Based Real Time   Water Pressure Monitoring System,”Proceeding Electrical Engineering, Computer  Science and Informatics (EECSI)”, 20 – 21 August 2-14 | | | |
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