

UNIVERSITAS NEGERI YOGYAKARTA

Graduate School Programme

Jl. Colombo No. 1 Yogyakarta 55281 Telp. 0274-550836 Fax. 0274-520326 Email: pps@uny.ac.id; humas_pps@uny.ac.id Website: pps.uny.ac.id

Master of Education in Electrical Engineering

Telp.: 0274-520326 Email: pte.pps@uny.ac.id Website: http://pte.pps.uny.ac.id/



Name	Prof. Ir. Moh. Khairudin, MT., P			
Expertise	Electrical Automation in Technical and Vocational Education			
Academic Career	Professor	Institution	Year	
		Yogyakarta State University	2002	
Academic Background	1. Doctor Degree	University of Technology Malaysia	2008-2011	
	2. Master Degree	Institute of Technology Sepuluh November	2004-2006	
	3. Undergraduate Degree	Yogyakarta State University	1998-2002	
Employment	Position	Employer	Period	
	Vice Dean of Academic Affairs and Cooperation	Faculty of Engineering Yogyakarta State University	2019 - 2023	
	Vice Dean of Academic Affairs and Cooperation	Faculty of Engineering Yogyakarta State University	2016 - 2019	
	Head of Electrical Engineering Vocational Program Study Program	Faculty of Engineering Yogyakarta State University	2015 - 2016	
	Head of Electrical Engineering Education Study Program	Faculty of Engineering Yogyakarta State University	2012 - 2015	
	Associate Chief Editor of Asian Journal of Vocational Education and Humanities	Malaysia	2020 - present	
	Editor in Chief of The Journal of Technology and Vocational Education	Faculty of Engineering Yogyakarta State University	2012- present	
	7. Robot Team Mentor of Yogyakarta State University	Faculty of Engineering Yogyakarta State University	2012- present	
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Research and development projects over the last 5 years	1. Basic Research Simlitabmas (Year II) "Design Of An Efficient Trajectory Control of an Autonomous Telepresence Robot." Periode: 2020 Amount of financing: IDR 83.000.000,- 2. Basic Research Simlitabmas (Year I) "Design Of An Efficient Trajectory Control Of An Autonomous Telepresence Robot." Periode: 2019 Amount of financing: IDR 104.000.000,- 3. Featured Research of PT Simlitabmas "Development of IoT-Based Integrated Control Light Sockets In An Effort To Realize Smart			
	Building And Energy Saving Electricity." Periode: 2019 Amount of financing: IDR 180.000.000,-			

	4. Indonesia-Taiwan Cooperation		
	"The development of virtual reality- based E-laboratorium for technology education to		
	support Green campus and low-cost education."		
	Periode: 2018		
	Amount of financing: IDR 75.000.000 ,-		
	5. Indonesia-Malaysia Cooperation		
	"Development of trajectory control of a bomb disposal robot using an image processing and		
	internet of things."		
	Periode: 2017		
	Amount of financing: IDR 100.000.000 ,-		
	6. Basic Research Simlitabmas (Year 3) "Development of Fetal Prediction Tools In The Womb Using Ultrasonography Image		
	Segmentation (ULTRASOUND) In An Effort to Realize Cheap Health."		
	Periode: 2017		
	Amount of financing: IDR 150.000.000,-		
	7. Basic Research Similatemas (Year 2)		
	"Development of Fetal Prediction Tools In The Womb Using Ultrasonography Image		
	Segmentation (ULTRASOUND) In An Effort to Realize Cheap Health."		
	Periode: 2016		
	Amount of financing: IDR 150.000.000,-		
	6. DIPA UNY		
	"Development of Human Machine Interface Based Automatic Control System To Facilitate		
	(User Friendly)."		
	Periode: 2016		
	Amount of financing: IDR 15.000.000,-		
	7. Basic Research Simlitabmas (Year 1)		
	"Development of Fetal Prediction Tools In The Womb Using Ultrasonography Image		
	Segmentation (ULTRASOUND) In An Effort to Realize Cheap Health." Periode: 2015 Amount of financing: IDR 150.000.000,-		
	7. Similtabmas Competing Grants		
	"Effectiveness of Metode Problem Based Learning On Control System Balance Robot		
	Manipulator With Neural Network Backpropagation)."		
	Periode: 2015		
	Amount of financing: IDR 50.000.000,-		
	8. DIPA UNY		
	"Swing Control System On Robot Racket Arm Based Combination Proximity Sensor And		
	Pneumatic."		
	Periode: 2015		
	Amount of financing: IDR 10.000.000,-		
Industry collaborations/			
education institution			
over the last 5 years			
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Patents and proprietary	Robust Control System (2018). UNY Press		
rights	Development of fetal sensing methods in Content (2018).		
	Automatic Control Based System Matlab (2015). UNY Press		
	4. Two-Link Bending Arm Robot with Built-in Load Variations (2015). HKI.3- HI.05.01.02.P0020		
	1507652		
Lucy and and made P. C.	A Million die Misterden I Districte I Nischi (2000) N. (J.T. de C. Mist.)		
Important publications	1. M Khairudin, M Iskandar, I Djatmiko, I Nashir. (2020). Virtual Trainer for Mobile Augmented		
over the last 5 years	Reality Based Electrical Lighting Installation. International Association of Online		
	Engineering. Link: https://www.online-journals.org/index.php/i-jim/article/view/12397		
	THE THIS WANNER OF THE STATE OF		

- M Khairudin, R Asnawi, A Shah. (2020). The characteristics of TB6600 motor driver in producing optimal movement for the Nema23 stepper motor on CNC machine. Telkomnika 18 (1).
 Link:https://search.proquest.com/openview/c328f808f2d51ada974624ee8c0b4e26/1.pdf?pq-origsite=gscholar&cbl=376296
- M Khairudin, SP Herlambang, HI Karim, MNA Azman. (2020). Vision-Based Mobile Robot Navigation for Suspicious Object Monitoring in Unknown Environments. Journal of Engineering Science & Technology 15 (1), 152-166. Link:http://jestec.taylors.edu.my/Vol%2015%20issue%201%20February%202020/15 1 12.pdf
- M Khairudin, HA Wijaya. (2020). Converter matlab fuzzy inference to arduino Csystem. Journal of Physics: Conference Series 1456 (1), 012010. Link: https://iopscience.iop.org/article/10.1088/1742-6596/1456/1/012010
- M Khairudin, GW Lanang, A Arifin. (2020). Attadance system using infrared sensors. Journal of Physics: Conference Series 1456 (1), 012012. Link: https://iopscience.iop.org/article/10.1088/1742-6596/1456/1/012012
- M Khairudin, N Parwantiningsih, E Panji, R Prayoga. (2020). Water level control system using silicon controlled rectifier. Journal of Physics: Conference Series 1456 (1), 012013. Link: https://ui.adsabs.harvard.edu/abs/2020JPhCS1456a2013K/abstract
- 7. M Khairudin, DY Syarif. (2020). Attadance system in the teaching and learning process using RFID smart cards. Journal of Physics: Conference Series 1456 (1), 012011. Link: https://iopscience.iop.org/article/10.1088/1742-6596/1456/1/012011
- M Khairudin, A Kurnianto, S Yatmono, HS Pramono, KI Ismara, JN Rohman. (2020). The motion control of three-phase motor using wireless communication: design and experimental works. Journal of Physics: Conference Series 1456 (1), 012009. Link: https://iopscience.iop.org/article/10.1088/1742-6596/1456/1/012009
- M Khairudin, F Wulandari, D Mardapi. (2020). Implementation of Computer Bases
 Assessment on Students' Aptitude Using Online and Multimedia Test for Talent
 Mapping. Journal of Physics: Conference Series 1456 (1), 012059.
 Link: https://iopscience.iop.org/article/10.1088/1742-6596/1456/1/012059
- DY Prasetyo, M Khairudin. (2020). Development of computer adaptive testing on the subject of Digital and Communication Simulation using item theory responses. Journal of Physics: Conference Series 1446 (1), 012058. Link: https://iopscience.iop.org/article/10.1088/1742-6596/1446/1/012058
- 11. M Khairudin. (2020). Dynamic analysis and modeling of three-dimensional crane incorporating payload. Journal of Physics: Conference Series 1446 (1), 012003. Link: https://iopscience.iop.org/article/10.1088/1742-6596/1446/1/012003
- S Yatmono, M Khairudin, HS Pramono, A Asmara. (2019). Development of Intelligent Floor Cleaning Robot. Journal of Physics: Conference Series 1413 (1), 012014. Link: https://iopscience.iop.org/article/10.1088/1742-6596/1413/1/012014
- 13. M Iskandar, M Khairudin. (2019). Learning Media of Electric Lighting Installation Based on Mobile Augmented Reality. Journal of Physics: Conference Series 1413 (1), 012024. Link: https://iopscience.iop.org/article/10.1088/1742-6596/1413/1/012024
- HA Wijaya, M Khairudin. (2019). Development of Arduino Assisted Microcontroller Instructional Devices in Vocational High Schools. Journal of Physics: Conference Series 1413 (1), 012015.
 Link:https://iopscience.jop.org/article/10.1088/1742-6596/1413/1/012015
- 15. A Shah, S Suhailiezana, CC Kob, M Khairudin. (2019). Effectiveness of m-Learning Applications for Design and Technology Subject. International Association of Online Engineering.
 Link:https://www.researchgate.net/publication/336056169 Effectiveness of m-Learning Applications for Design and Technology Subject
- AN Amri, MNA Azman, TT Kiong, M Khairudin. (2019). Effectiveness of Teaching Aids (SMART COT) in The Basis of Furniture Making National High School Daily Special Education Level One. Journal of Vocational Education Studies 2 (1), 23-36. Link: https://core.ac.uk/reader/267886330
- 17. M Khairudin, GD Chen, MC Wu, R Asnawi, N Nurkhamid. (2019). Control of a movable

- **robot head using vision-based object tracking.** International Journal of Electrical & Computer 9 (4), 2503-2512.
- Link: https://pdfs.semanticscholar.org/a012/f69ddb594f9795dce5a6363c04fbd39c9d42.pdf
- IM Nashir, A Yusoff, M Khairudin, M Ridzuan, NNIM Idris. (2019). Delphi Method: The Development of Robotic Learning Survey in Tertiary Education. Journal of Vocational Education Studies 2 (1), 13-22. Link: https://core.ac.uk/download/pdf/267886324.pdf
- M Khairudin. (2019). Developing a control system for a racket-wielding robot using a combination of promoximity sensor and pneumatic actuator to optimize shuttlecock hit. IOP Conference Series: Materials Science and Engineering 535 (1), 012012. Link: https://iopscience.iop.org/article/10.1088/1757-899X/535/1/012012
- M Khairudin, AD Hastutiningsih, THT Maryadi, HS Pramono. (2019). Water level control based fuzzy logic controller: simulation and experimental works. IOP Conference Series: Materials Science and Engineering 535 (1), 012021.
 Link: https://iopscience.iop.org/article/10.1088/1742-6596/1456/1/012013
- 21. FA Ghozali, R Asnawi, M Khairudin, MP Jati, A Hoirul. (2019). **Designing a Skill Tree Model for Learning Media.** Journal of Technology and Vocational Education 25 (1), 132-140. Link: https://journal.uny.ac.id/index.php/jptk/article/view/20234
- L Sugiyanta, M Sukardjo, M Khairudin, IM Nashir. (2019). Vocational Curriculum Implementation of the Three Years Program of Electronics Engineering. Journal of Technology and Vocational Education 25 (1), 85-96.
 Link: https://journal.uny.ac.id/index.php/jptk/article/view/18347
- 23. M Khairudin, AK Triatmaja, WJ Istanto, MNA Azman. (2019). Mobile virtual reality to develop a virtual laboratorium for the subject of digital engineering. International Association of Online Engineering.

 Link: https://www.online-journals.org/index.php/i-jim/article/view/10522/0
- 24. M Khairudin, KI Ismara, S Soeharto. (2019). Improving character education through industrial ethics using a model of private sector cooperation. Link:
- MN Mohd Nawi, N Mohd Nasir, MNA Azman, J Jumintono, M Khairudin. (2019). Investigation factors of delay in IBS construction project: manufacturer perspectives. Journal of Engineering Science and Technology, 59-66. Link: http://repo.uum.edu.my/26099/
- 26. Mohd Erfy Ismail, Pipit Utami, Irwan Mahazir Ismail, Moh Khairudin, Mohd Hasril Amiruddin, Badraningsih Lastariwati, Nopadon Maneetien. (2018). The Effect of an Augmented Reality Teaching Kit on Visualization, Cognitive Load and Teaching Styles. Jurnal Pendidikan Teknologi dan Kejuruan 24 (2), 178-184. Link: https://journal.uny.ac.id/index.php/jptk/article/view/20031
- 27. P Budiastuti, M Khairudin, MNA Azman. (2018). E-Instructional Multimedia in Basic Concepts of Electrical and Electronic Lessons. Jurnal Pendidikan Teknologi dan Kejuruan 24 (2), 262-269. Link: https://journal.uny.ac.id/index.php/jptk/article/view/18714/11207
- 28. AK Triatmaja, M Khairudin. (2018). Study on Skill Improvement of Digital Electronics

 Using Virtual Laboratory with Mobile Virtual Reality. Proceeding of International Conference of Electrical, Electronics, Informatics and Vocational Education, Yogyakarta, Indonesia.

 Link: https://iopscience.iop.org/article/10.1088/1742-6596/1140/1/012021
- 29. Mohd Erfy Ismail, Norhasyimah Hamzah, Arihasnida Ariffin, Irwan Mahazir Ismail, Khairul Azhar Mat Daud, Pipit Utami, Moh Khairudin. (2018). The acceptance of MOOC among TVET students in higher education: An observation. Journal of Technology and Vocational Education 15 (2).

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- M Khairudin, T Maryadi. (2018). Development of Neural Network Controller for A Two-Link Flexible Manipulator. International Conference on Indonesian Technical Vocational Education and Association (APTEKINDO 2018). Link: https://www.atlantis-press.com/proceedings/aptekindo-18/25903523
- 31. Mohd Erfy Ismail, Suhaizal Hashim, Irwan Mahazir Ismail, Affero Ismail, Nizamuddin Razali, Khairul Azhar Mat Daud, Moh Khairudin. (2018). The use of massive open online course (MOOC) among vocational students. Journal of Nusantara Studies (JONUS) 3 (1), 30-41.

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- 32. M Khairudin, Efendi, N Purwatiningsih, W Irawan. (2018). The implementation of silicon controlled rectifiers for DC motor control. AIP Conference Proceedings 1977 (1), 030035. Link: https://aip.scitation.org/doi/10.1063/1.5042955
- 33. M Khairudin, S Riyanto, Z Mohammed. (2018). **Development of Fuzzy Logic Control for Indoor Lighting Using LEDs Group.** Telkomnika 16 (3), 1165-1173. Link: http://journal.uad.ac.id/index.php/TELKOMNIKA/article/view/8048
- 34. H Raharjo, M Khairudin, J Abd Baser. (2018). The influence of problem-based learning and direct teaching on students' learning outcomes. Journal of Technology and Vocational Education 24 (1), 62-71. Link: https://journal.uny.ac.id/index.php/jptk/article/view/18015
- 35. EA Juanda, N Wahidah, M Khairudin, Z Mohamed. (2018). Implementation of a Raspberry Pi Trainer for the Subject of Microprocessors and Microcontrollers in Vocational High Schools. Journal of Technology and Vocational Education 24 (1), 147-154. Link: https://journal.uny.ac.id/index.php/jptk/article/view/18428
- 36. M Khairudin. (2018). Expansion of point d interet point d'action legal basis on filing a lawsuit as a result of the loss of life of a minor.

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- M Khairudin. (2018). PID Control for a Manipulator Robot Using Internet Networking and Matlab-based. Journal of Physics Conference Series 1140, 012004. Link: https://iopscience.iop.org/article/10.1088/1742-6596/1140/1/012004
- 38. M Khairudin, S Adyarno. (2018). Solar Tracker on Solar Home System to Optimize Sunlight Absorption. Journal of Physics: Conference Series 1140 (1), 012005. Link: https://iopscience.iop.org/article/10.1088/1742-6596/1140/1/012005
- M Khairudin, BTJ Laras, D Irmawati. (2017). Region of interest detection for pregnancy image processing. 2017 4th International Conference on Electrical Engineering, Computer Science and Informatics (EECSI).
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- A Tafrikhatin, FP Marsyaly, <u>M Khairudin.</u> (2017). Development of a Mobile Learning for Digital Logic Gates in Vocational Schools. International Conference on Technology and Vocational Teachers (ICTVT 2017). Link: https://www.atlantis-press.com/proceedings/ictvt-17/25884508
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- 43. ES Damarwan, M Khairudin. (2017). **Development of an interactive learning media to improve competencies.** International Conference on Technology and Vocational Teachers (ICTVT 2017). Link: https://www.atlantis-press.com/proceedings/ictvt-17/25884485
- 44. J Abd Baser, A Hasan, S Ismail, SK Omar, MAM Jizat, M Khairudin. (2017). Involvement of Person with Physical Disabilities (PWD) in Technical Skills Field Employment. International Conference on Technology and Vocational Teachers (ICTVT 2017). Link: https://www.atlantis-press.com/proceedings/ictvt-17/25884539
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- 46. S Marfu'ah, IW Djatmiko, M Khairudin. (2017). Learning goals achievement of a teacher in professional development. Jurnal Pendidikan Teknologi dan Kejuruan 23 (3), 295-303. Link: https://media.neliti.com/media/publications/163751-EN-learning-goals-achievement-of-a-teacher.pdf
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	48. M Khairudin, D Irmawati. (2016). Comparison methods of edge detection for USG images
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	Engineering (ICITACEE).
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	49. M Khairudin, R Asnawi, SP Herlambang, TM Totok Heru, A Candra, T Sukisno. (2016 Curriculum Development of Vocational Education for Electrical Engineering Refers t
	the National Qualification Framework for Standarizing Student Competence's.
	CEEDINGS.
	Link:
	50. M Khairudin. (2016). Comparison Methods for Converting a Spindle Plant to Discret
	System. Indonesian Journal of Electrical Engineering and Computer Science 1 (3), 575-582
	Link: http://ijeecs.iaescore.com/index.php/IJEECS/article/view/305
	51. Z Mohamed, M Khairudin, AR Husain, B Subudhi. (2016). Linear matrix inequality-base
	robust proportional derivative control of a two-link flexible manipulator. Journal
	vibration and control 22 (5), 1244-1256.
	Link: http://staff.uny.ac.id/sites/default/files/pengabdian/moh-khairudin/journal-vibration-and-
	control-2016-mohamed-1244-56used.pdf
	52. M Khairudin, D Irmawati. (2015). Comparison methods of noise elimination for pregnance
	image processing. 2015 2nd International Conference on Information Technology, Compute
	and Electrical Engineering (ICITACEE).
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	53. M Khairudin. (2015). Robust control design for a spindle of lathe machine. 2015 2n
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	(ICITACEE). Link: https://ieeexplore.ieee.org/abstract/document/7437804/
	54. M Khairudin, RN Ridho. (2015). Automatic Control System Development of Whiteboar
	Marker Ink Recharging Process. Jurnal Teknologi Technoscientia, 39-46. Link: https://ejournal.akprind.ac.id/index.php/technoscientia/article/download/188/122
	55. M Khairuddin, JA Sadewa. (2015). Design and Implementation of Ppr Light Intensit
	Control System Using SMS Based Remote Control. Sinergi 19 (2), 77-84.
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	56. M Khairudin. (2015). Two-Link Flexible Manipulator as an Alternative in Improvin
	Energy Efficiency of Manipulator Robot. Jurnal Penelitian Saintek 20 (2).
	Link: https://journal.uny.ac.id/index.php/saintek/article/view/9594/pdf
Activities in specialist	Member of Institute of Electrical & Electronics Engineer (IEEE)
oodies over the last 5	2. Member of International Institute of Acoustic & Vibration (IIAV)
years	Member of Indonesian Electrical Engineering Forum
	4. Members of The Indonesian Vocational College Forum
	5. Association of Vocational Lecturers and Teachers