Research and Publication

Historical Development

The academic quality of a higher education institution could not be separated from the successful of the three roles of higher education (otherwise it called as Tri Dharma of Higher Education), which are teaching, research and community service. Universities are required to continuously develop three advantages, namely excellence in teaching, research and dedication to community service. Organizing research activities becomes an obligation of each higher education institution as stated in Article 20 of Law No 20 of 2003 on National Education System, which explicitly states that higher education institutions are obliged to conduct research. To be able to conduct such research obligations, higher education institutions are required to have competent lecturers in making research proposals, conduct research, disseminate research results and ultimately produce result in various forms of intellectual property. Universitas Teknokrat Indonesia (UTI) is committed to conducting research activities with full dedication to produce renewal, innovation, science and technology. UTI has made rapid progress since 2017 with a history of clustering research fields as follows:

- 2017 : Fostered Cluster
- 2019 : Intermediate Cluster
- 2023 : Main Cluster

Research and scientific publications conducted by lecturers at the UTI are managed by the Lembaga Penelitian dan Pengabdian Masyarakat (LPPM) and assisted by Scientific Groups in each faculty. The main focus of LPPM and Scientific Groups is to develop and facilitate research activities and research-related activities such as research dissemination through journal publishing and intellectual property.

Research conducted by UTI as an embodiment of one of three roles of Higher Education with the ultimate goal of improving the quality of teaching and learning process as well as contributing to the body of knowledge and producing the products of intellectual property which is funded from both internal and external research grants. UTI Competitive Research Grants is an internal research grant given every year with a maximum research period of one year. LPPM also aid researchers who wish to participate in research activities funded by external parties such as DIKTI and other external parties.

As an effort to attract research activities to national and international levels (high impact research), LPPM has formed several Scientific Groups, and the number will continue to increase from year to year. Several scientific groups that have been established are:

1. Scientific Group at the Faculty of Engineering and Computer Science

No	Scientific Group	Area
1	Electrical Power	● Electricity from new and renewable energy sources ● New and renewable energy for transportation ● battery technology ● renewable hydrogen sources

		● conversion of biomass into gaseous or liquid fuels
2	Control Systems and Robotics	● Temperature Detection Sensor ● Use of Sensors for Monitoring ● Robotics Development System ● Intelligent Control System
3	IoT and Embedded Systems	● Internet of Things for Animal Husbandry ● Internet of Things for Agriculture ● Internet of Things for Smart Home ● Internet of Things for Building ● Internet of Things for Industry
4	Data Science and Artificial Intellegence	● Data Warehouse ● Data Mining ● Text Mining ● Development of Data Science Technology and Big Data ● Artificial Intellegence for Education ● Artificial Intellegence for Health ● Artificial Intellegence for Agriculture ● Artificial Intellegence for Smart Home ● Artificial Intellegence for Smart City
5	Software engineering	● e-Government/Electronic Based Government System ● Open source software engineering ● Smart software ● Distributed software engineering ● Software testing ● Software security ● Development of software development methodologies ● Software project management ● Software for a specific environment
6	Governance and Information Systems	● E-government ● IT governance ● E-Business ● E-Commerce ● Open data and transparency ● Digital transformation ● Information security and privacy ● Digital innovation ● Digital inclusion ● Data analytics and decision-making
7	Games and Multimedia	● Metavers ● Game design and development ● Gamification ● Virtual and augmented reality ● Serious games ● Interactive storytelling ● Game analytics
8	Network and Digital Forensics	● Network security ● Digital forensics investigations

		● Cybercrime ● Incident response ● Internet of Things (IoT) security ● Digital footprint analysis ● Network traffic analysis ● Cyber threat intelligence ● Cryptography ● Steganography
9	Technology and Civil Engineering	● Building information modeling (BIM) ● Sustainable construction ● Smart infrastructure ● Disaster risk reduction ● Geotechnical engineering ● Structural health monitoring ● Construction safety: ● Infrastructure asset management ● Transportation

2. Scientific Group at the Faculty of Economics and Business

No	Scientific Group	Area
1	Economics & Finance	● Technology-Based SMEs and Creative Economy ● Regional Economy, tax and retribution ● Regional development ● Regional Finance and Corporate Finance
2	Marketing Management and Entrepreneurship	● Green Marketing ● Digital Marketing ● Fintech ● Social Media Marketing ● Consumen Behavior ● Technopreneurship ● Entrepreneurship ● Startup Business
3	Human Resource Management	● Leadership ● Organizational Behavior ● Human Resorces ● Organizational Citizenship Behavior
4	Islamic accounting and finance	● Islamic finance ● Capital Market Islamic Finance
5	Sustainability accounting	● Green Accounting ● Environmental accounting ● Good Corporate ● Corporate Social Responsibility
6	Behavioral accounting	● Accounting information system ● Behavioral accounting ● Internal audit, tax
7	Financial Accounting	● Coorporate Finance ● Capital Market

3. Scientific Group at the Faculty of Art and Education

No	Scientific Group	Area
1	Mathematics education	● Teaching and learning mathematics ● Technology in mathematics education ● Mathematical problem-solving ● Curriculum development ● Assessment in mathematics education ● Equity and diversity in mathematics education ● Teacher professional development ● Cognitive and affective aspects of mathematics learning
2	Sports Education	● Physical education curriculum development ● Coaching and athlete development ● Inclusive sports education ● Technology in sports education ● Youth sports development ● Sports psychology ● Physical literacy ● Sport and society
3	Teacher Training and Technology-based classroom practice	● Professional knowledge, identity, beliefs & understanding of teaching & learning in teacher education ● Building a research-based agenda for teacher education ● Language teacher education and development ● Theoretical base for teacher education ● Blended Learning ● Pedagogical approaches in teacher education ● Analysis of academic and professional discourse ● Context appropriate English Language Teaching (ELT) methodology/local pedagogies ● English for Specific Purposes (ESP) / English for Academic Purposes (EAP) ● Teaching Media ● Computer Assisted Language Learning ● Digital/Social media in Teaching and Learning ● Internet for Teaching and Learning
4	linguistics	● SFL in language teaching ● SFL modeling in local language ● SFL in Literature ● SFL in academic text ● SFL in mass media ● SFL in translation studies ● Digital media language variation ● Language and identity ● Geographical language variation ● Syntactical language description

		• Lexical field of local language • EFL phonology • Language interference/ contact • New language • DA and Corpus Linguistics • Discourse and Pedagogy • Discourse Appraisal • Ideology in Discourse • Framing Mass Media • DA and online sentiment analysis • Chicano Literature studies • Transnational studies in Literature • National identity in Literature • Multiculturalism and Literature • National politics and literature • Poetry and language teaching • Drama and language teaching • Literary Education for Young learner • Literary Production program for education institution • Literary appreciation
5	Literature	• Postcolonial Literature • Digital Literature • Transnational studies in Literature • National identity in Literature • Multiculturalism and Literature • Applied Literature • Poetry and Drama for language teaching • Literary Education for Young learner • Literary Production program for education institution • Literary appreciation

Personel

Our Team

Vice Rector Universitas Teknokrat Indonesia	Dr. H. Mahathir Muhammad, SE., MM.
Head of LPPM	Fedi Ameraldo, S.E.I., M.Ak
Scientific Group Coordinator	Dr.Sc. Dedi Darwis, M.Kom., CDSP.
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Scientific Group Coordinator Electrical Power	Novia Tri Utami, M.T.
Scientific Group Coordinator Control Systems and Robotics	Jaka Persada Sembiring, M.Cs.
Scientific Group Coordinator IoT and Embedded Systems	Selamet Samsugi, M.Eng.

Scientific Group Coordinator Data Science	Nirwana Hendrastuty, M.Cs.
Scientific Group Coordinator Software engineering	Erliyan Redi Susanto, M.Kom.
Scientific Group Coordinator Governance and Information Systems	Rusliyawati, M.T.I.
Scientific Group Coordinator Games and Multimedia	Ade Dwi Putra, M.Kom.
Scientific Group Coordinator Network and Digital Forensics	Andi Nurkholis, M.Kom.
Scientific Group Coordinator Technology and Civil Engineering	Fera Lestari, M.T.
Scientific Group Coordinator at the Faculty of Economics and Business	Defia Riski Anggraini, M.Si.
Scientific Group Coordinator Economics & Finance	Dr. Emi Suwarmi, S.E., M.Si.
Scientific Group Coordinator Marketing Management and Entrepreneurship	Almira Devita Putri, S.A.P., M.A.B.
Scientific Group Coordinator Human Resource Management	Larasati Ahluwalia, SE., M.Sc.
Scientific Group Coordinator Islamic accounting and finance	Marsi Fella Rizki, SE., M.Ak.
Scientific Group Coordinator Sustainability accounting	Fedi Ameraldo, SEI., M.Ak.
Scientific Group Coordinator Behavioral accounting	Tri Darma Rosmala Sari, SE., MS.Ak.
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Scientific Group Coordinator Sports Education	Imam Mahfud, M.Pd.
Scientific Group Coordinator English language education	Berlinda Mandasari, M.Pd.
Scientific Group Coordinator Linguistics	Dr. Heri Kuswoyo, S.S., M.Hum.
Scientific Group Coordinator Literature	Dr. E. Ngestirosa, S.Pd., S.S., M.A.