

TOPIK PENELITIAN
PRODI TEKNIK INFORMATIK FAKULTAS ILMU KOMPUTER
UNIVERSITAS UBUDIYAH INDONESIA

NO	TOPIK PENELITIAN	SUB TOPIK	Dosen Pengampu
1.	Embedded System (System Tertanam)	<ul style="list-style-type: none"> • Mikrokontroler • Prosesor <i>Reduced Instruction Set Computing</i> (RISC) • <i>Chip-Digital Signal Processor</i> (DSP) • Prosesor multimedia • <i>Application Specific Integrated Processor</i> (ASIP) • Bidang Teknologi Elektronika • Global Positioning System (GPS) • Programmable logic controller (PLC) • Bidang Elektromedis seperti : (Ultrasonography (USG), sistem detektor denyut jantung, sistem pengukur gula darah elektronik, maupun alat pencitraan medis) 	
2.	Mobil Computing	<ul style="list-style-type: none"> • Teknologi Microcomputer, • Sistem koordinat dengan Global Positioning System (GPS) • Sistem Personal Digital Asisten (PDA) • Teknologi SMS, EMS • Teknologi Wireless Application Protocol (WAP) • Teknologi RFID • mini Komputer, • Super Computer, 	
3.	Software Enggineering	<ul style="list-style-type: none"> • Engineering Process • Engineering Tools and Methods • Pengembangan software • Data Mining • Appropriate Software 	

		<p>Methodology</p> <ul style="list-style-type: none"> • Content Management System • Mobile Application • Artifacts and Process Based Software Metrics • Software Project Management Tool • Open Source Software Competency • Object Oriented and Temporal Database • Measurement of Motivation on e-Learning • Engineering Process 	
4.	Visualisasi dan Komputer Grafik	<ul style="list-style-type: none"> • Komputer 3D • Pemrosesan Citra • Sistem Visualisasi desains produk • Multimedia Interaktif • Bidang Animasi • Bidang Geometri • Bidang Rendering 	
5.	Knowledge dan Data Engineering	<ul style="list-style-type: none"> • Sistem kecerdasan buatan • Sistem Pendukung Keputusan • Sistem Informasi Geografis • Sistem Pakar • Data Base 	
6.	Robotika	<ul style="list-style-type: none"> • Robotics Engineering • Artificial intelligence Robot • Assembly System • Nano Technology • Programmable Logic Controller (PLC) • Robot controlled with Brain Signal • Robot controlled with Brain Signal • Distributed Control Sistem • Machine to Machine Networking 	
7.	Artificial Intelligent	<ul style="list-style-type: none"> • Swarm Intelligence, 	

		<ul style="list-style-type: none"> • Teknologi Game • Logika Fuzzy • Sistem Jaringan syaraf tiruan • Sistem pakar • Adaptation in natural and artificial system, • Genetic Programming, • Teknologi Robotika 	
8.	Decision Support System (DSS)	<ul style="list-style-type: none"> • Network modeling and its application to disease forecasting, • Utilization and optimization of forecasting algorithm in different areas, • Implementation of decision tree algorithm for disease diagnose, • The use of bayesian neural network for disease diagnose, • Application of bayesian network in different areas, • Implementation of causal probabilistic network, • Implementation of group DSS for optimizing decision making 	
9.	Biologi Komputasi dan Bioinformatika	<ul style="list-style-type: none"> • Pemrosesan Teks dan Data Genomis dengan <i>Python</i> • Identifikasi Variasi Genom • Visualisasi Data Genom dengan <i>SVG, R, Circos</i> dan <i>Jbrowse</i> • <i>Gerak Evolusi</i> • <i>Populasi</i> • <i>Bio Medis dalam mekul dan sel</i> • <i>Diagnosa Penyakit</i> • <i>Analisa Organ Tubuh</i> • <i>PET(Position Emission Tomography)</i> • <i>NMR (Nuclear Magnetic Resonance)</i> • <i>Helical CT SCAN</i> • <i>MRI (Magnetic Resonance Imaging)</i> 	

10.	Computer Security	<ul style="list-style-type: none">• Security Architecture• Security Operating System• Secure Coding• Security by desains	
11.	Ubiq uitous Computing	<ul style="list-style-type: none">• Natural Interface• Teknologi Voice Recognizer• Algoritma Genetik• Jaringan saraf tiruan• Fuzzy Logic• Context Aware Computing• Micro Nanotechnology	