

Department of **Electrical Engineering**
 Doctoral – Electrical Engineering
 FACULTY OF INDUSTRIAL TECHNOLOGY
INSTITUT TEKNOLOGI SEPULUH NOPEMBER (ITS)

Smt	Code	Courses	Credits
1	TE3401	Advanced Electric Motor Control**	3
1	TE3402	Control and Power Electronics**	3
1	TE3403	Artificial Intelligent Based Electric Motor Control Technology**	3
1	TE3404	Renewable Energy Conditioning and Engineering**	3
1	TE3405	Advanced Electric Machinery Selection and Application**	3
1	TE3406	Automation System for Electric Distribution**	3
1	TE3407	Power System Stability**	3
1	TE3438	Computational Electromagnetics**	3
1	TE3439	Radio Wave Propagation**	3
1	TE3465	Advanced Optimal Control**	3
1	TE3466	Analysis and Control for Non-Linear System**	3
1	TE3474	Signal Processing for Noise Reduction and Advanced Processing **	3
1	TE3475	Harmonic Analysis**	3
1	TE3476	Multimedia and Signal Processing Information**	3
1	TE3490	Medical Image Analysis**	3
1	TE3491	Modeling and Visualization of Medical Data**	3
1	TE3591	Dissertation - Pre-Research	3
2	TE3408	Converter System in Distribution Transmission**	3
2	TE3409	Electric Quality Control System**	3
2	TE3410	Distribution Electrical Quality**	3
2	TE3411	Large Scale Electric System**	3

Smt	Code	Courses	Credits
2	TE3412	Power System Intelligent Hybrid Control Strategy**	3
2	TE3413	Control and Protection Coordination in Electric System Generation **	3
2	TE3414	Switching Symptoms in Electric Power System**	2
2	TE3415	Multicontroller Coordination**	3
2	TE3444	Sensor Technology**	3
2	TE3445	Trajectory Design for Automatic Machine and Robots **	3
2	TE3446	Computer Based Integrated Manufacture**	3
2	TE3458	Voice Signal Reconstruction and Analysis for Biomedical Application**	3
2	TE3479	Affective Computing**	3
2	TE3592	Dissertation - Qualification	3
3	TE3416	Distributed control for Interconnection Electrical System **	3
3	TE3417	Electric System Stability and Dynamics**	3
3	TE3418	Power Control for Interconnection Channel **	3
3	TE3419	Burden Control and Modeling**	3
3	TE3420	Planning, Reliability and Intelligent Optimization**	3
3	TE3434	Optimization**	3
3	TE3435	Multi Antenna Wireless Communication System**	3
3	TE3436	Adaptive and Statistical Signal Processing**	3
3	TE3437	Wireless Communication Networks**	3

Smt	Code	Courses	Credits
3	TE3593	Dissertation - Research Dissemination 1	6
4	TE3421	Non-Linear and Chaotic Dynamics**	3
4	TE3422	Machine Learning I**	3
4	TE3423	Machine Learning II**	3
4	TE3431	Detection and Estimation Theory**	3
4	TE3432	Advanced Digital Communication System**	3
4	TE3594	Dissertation - Research Dissemination 2	6
5	TE3433	Multimedia Signal Processing**	3
5	TE3441	Electronic System Design**	3
5	TE3442	Advanced Industrial Electronics**	3
5	TE3443	Robotics and Artificial Intelligence**	3
5	TE3451	Advanced Biomedical Technology**	3
5	TE3452	Clinical Technique**	3
5	TE3453	Biological Signal Modeling and Analysis**	3
5	TE3454	Rehabilitation Engineering**	3
5	TE3455	Biomechanics of Human Movement**	3
5	TE3456	Intelligent System in Biomedical Engineering**	3
5	TE3457	Topics in Advanced BME**	3
5	TE3461	System Theory**	3
5	TE3462	Geometry and Algebra System for Management System**	3
5	TE3463	Sensor and Identification**	3
5	TE3464	Vector Essence and the Application**	3

* Select one of those with stars

** Elective courses

Smt	Code	Courses	Credits
5	TE3471	Advanced Computer Architecture**	3
5	TE3472	Data Mining**	3
5	TE3473	Mobile Computation**	3
5	TE3477	Medical Image Analysis**	3
5	TE3478	Modeling and Visualization of Medical Data**	3
5	TE3480	Text Mining**	3
5	TE3481	Game Theory**	3
5	TE3482	Graphic Management Unit Architecture**	3
5	TE3483	Maya Game Environment**	3
5	TE3484	Game Interface**	3
5	TE3485	Grid Computing**	3
5	TE3486	Biometric System**	3
5	TE3487	Multimedia Communication Networks**	3
5	TE3488	Broadband Wireless Communication System**	3
5	TE3489	Special Topics in Telematics **	3
5	TE3595	Dissertation - International Journal	6
6	TE3596	Dissertation - Close Defense	3
6	TE3597	Dissertation - Open Defense	3

* Select one of those with stars

** Elective courses