Erasmus+

"Gheorghe Asachi" Technical University of Iasi

Faculty of Automatic Control and Computer Engineering

List of courses available for Erasmus incoming students

Name of English-taught study programmes	**Level of study** (UG/MSc)		Please mention **the link**
Machine Learning, Robotics and Control	MSc		https://ac.tuiasi.ro/wp-content/uploads/2023/09/Plan-masterat-MLRC-2023-2024-serii-in-curs.pdf
Distributed Systems and Web Technologies	MSc		https://study.tuiasi.ro/study-programs/distributed-systems-and-web-technologies-dswt/

No.	**Name of the course and main chapters**	**Code from the Study Plan**	**Field of study**	**Program of study**	**Professor** (please mention the **email address**)	**Level of study** (UG/MSc)	**Year of study**	**Semester** (1/2)	**No. of ECTS**	**Support materials** for the course (please mention **written materials** / **link address** for online materials and also the **language** of these materials: EN/FR/DE/ES/PT/IT etc)	**Individual or group meetings** (Please mention **Yes** or **No** and the **language** used during these meetings: EN/FR/DE/ES/PT/IT etc)	**Assessment** (Please mention the language for the assessment: EN/FR/DE/ES/PT/IT etc
1	**Multiprocessing Systems** **Shared-Memory Architectures** **Synchronization** **Memory Consistency**	C.DS.411	Computer and Control Engineering	Computer Engineering	Andrei STAN andrei.stan@academic.tuiasi.ro	UG	4	1	4	J. Hennessy, D. Patterson, Computer Architecture: A Quantitative Approach 6th Edition, 2017 EN	Yes EN	EN
2	**Computer Networks** **Architecture & Design** **TCP/IP stack**	CTI.DD.305	Computer and Control Engineering	Computer Engineering and Information Technology	Nicolae-Alexandru BOTEZATU nicolae-alexandru.botezatu@academic.tuiasi.ro	UG	3	1	4	Andrew S. Tanen Charles M. Kozi	Yes EN	EN
3	**Web Programming** **Web architecture** **HTTP protocol** **Web concepts and programming lang**	CTI.DD.312	Computer and Control Engineering	Computer Engineering and Information Technology	Adrian ALEXANDRESCU adrian.alexandrescu@academic.tuiasi.ro	UG	3	2	3	John Dean. 2018 David Herron. N	Yes EN	EN
4	**Image Processing** **Image enhancement** **Image segmentation** **Feature extraction**	CTI.DD.302	Computer and Control Engineering	Computer Engineering and Information Technology	Simona CARAIMAN simona.caraiman@academic.tuiasi.ro	UG	3	1	5	R.C.Gonzales, R W.K. Pratt, Digit	Yes EN	EN
5	**Introduction to Computer Vision** **Feature detection and matching** **Image alignment and stitching** **Stereo & stereo disparity: stereo** **Image recognition** **Deep learning**	TI.DS.421	Computer and Control Engineering	Information Technology	Vasile MANTA vasile-ion.manta@academic.tuiasi.ro	UG	4	2	4	Richard Szeliski,	Yes EN	EN
6	**Artificial Intelligence** **Search methods, optimization, Bayes**	C/TI.DD.402	Computer and Control Engineering	Computer Engineering and Information Technology	Florin LEON florin.leon@academic.tuiasi.ro	UG	4	1	5	S. J. Russell, P. N	Yes EN	EN
7	**Microprocessors Systems** **ARM Cortex-M architecture** **CMSIS Architecture** **Serial data communications** **Time sharing principles**	CTI.DS.307	Computer and Control Engineering	Computer Engineering and Information Technology	Florin PANTILIMONESCU florin-gheorghe.pantilimonescu@academic.tuiasi.ro Tudor POPOVICI tudor. popovici@academic.tuiasi.ro	UG	3	2	4	http://embedac.ro	Yes EN/FR	EN/FR

8	**Discrete Event Systems (Untimed Petri Nets (PNs). Behavioral and structural properties of PNs. PN models with deterministic timing. Applications to physical systems**	AIA306	Computer and Control Engineering	Automatic Control and Applied Infomatics	Prof. Mihaela-Hanako Matcovschi (mihaela-hanako.matcovschi@academic.tuiasi.ro	UG	3	2	3	EN Cassandras, C.(https://ieeexplor http://www.pntoc	Yes, EN	EN
9	**Microprocessor-Based Systems (8051 Architecture, 8051 Assembly language programming, 8051 C programming; 8051 Timer/Counter operation, 8051 Serial communication, 8051 Interrupt programming, 8051 Interfacing External Memory and Peripherals)**	AIA302	Computer and Control Engineering	Automatic Control and Applied Infomatics	Assoc. Prof. Mihai Postolache (mihai.postolache@academic.tuiasi.ro)	UG	3	1	5	EN Mackenzie, I.S.,	Yes, EN	EN
10	**Data transmission - Remote process control (Transmission media, Error detection and correction, Baseband data transmission, Modulation techniques, Networked control systems modeling and control, Remote predictive control)**	AIA402	Computer and Control Engineering	Automatic Control and Applied Infomatics	Prof. Constantin-Florin Caruntu (constantin-florin.caruntu@academic.tuiasi.ro)	UG	4	1	4	EN Forouzan B.A., [Wang F.Y., Liu D	Yes, EN	EN
11	**Pneumatic Drives (Properties of Compressed Air, Thermodynamic Processes, Engineering Flow Rate Calculations, Electro-Mechanical Converters, Cylinders, Directional Control Valves, Shut-Off Valves, Proportional Directional Control Valves, Designing pneumatic circuit)**	A313	Computer and Control Engineering	Automatic Control and Applied Infomatics	sist. prof. Constantin-Catalin Dosoftei (constantin-catalin.dosoftei@academic.tuiasi.	UG	3	1	5	EN Beater P., Pn	Yes, EN	EN
12	**Control Engineering (Continuous Control Systems Design: Tuning PID controllers, Pole placement design, Complex control systems design-cascade, feedforward, ratio and split range control, Smith predictor; Digital Control Systems Design: Pole placement in discrete time, Dead-beat control, Non-interacting control of multivariable systems, State space control, Predictive control)**	AIA401	Computer and Control Engineering	Automatic Control and Applied Infomatics	Prof. Corneliu Lazar (corneliu.lazar@academic.tuiasi.ro)	UG	4	1	4	EN Goodwin C., Astrom K.J., Hag Ogata K., Discre	Yes, EN	
13	**Real -Time Applications (Scheduler, Tasks, ISRs, Communication via message queues, Semaphores for sharing passive resources, Trace faciilities and hooks)**	AIA403	Computer and Control Engineering	Automatic Control and Applied Infomatics	Assoc Prof. Lavinia Ferariu (lavinia-eugenia.ferariu@academic.tuiasi.ro)	UG	4	1	5	EN Barry R., Mas Real Time Kerne Press, 2012.	Yes, EN	EN
14	**Robotics (Industrial robots, forward and inverse kinematics, robot workspace, path planning, robot programming)**	AIA305	Computer and Control Engineering	Automatic Control and Applied Infomatics	Prof. Doru Adrian Pănescu (doru-adrian.panescu@academic.tuiasi.ro)	UG	3	2	4	EN Siciliano B., Kha Lynch K., Park F Siciliano B., Scia	Yes, EN	EN
15	**Knowledge based systems (Knowledge representation, first order logics, resolution, semantic networks, frames, expert systems, rule-based programming)**	IA413	Computer and Control Engineering	Automatic Control and Applied Infomatics	Prof. Doru Adrian Pănescu (doru-adrian.panescu@academic.tuiasi.ro)	UG	4	1	4	EN Alor-Hernandez Brachman R., Le Giarrantano J., F	Yes, EN	EN
16	**Fundamentals of Feedback Control (This course develops the fundamentals of feedback control using linear transfer function/state space system models, stability analysis, time domain analysis of dynamic systems,frequency response and bode plots**	AIA207	Computer and Control Engineering	Automatic Control and Applied Infomatics	Conf.dr. Cristina Budaciu(cristina.budaciu@academic.tuiasi.ro)	UG	2	2	5	EN 1. Astrom, Karl,	Yes, EN	EN
17	**Neural Networks and Fuzzy Logic Neural networks (architecture, approximation, classification, identification and control), Fuzzy systems (sets, logic, control)**	IA418	Computer and Control Engineering	Automatic Control and Applied Infomatics	Prof. Octavian Pastravanu (octavian-cezar.pastravanu@academic.tuiasi.ro)	UG	4	2	5	Chapters from (i)	Yes, EN	EN
18	**Statistics and Data Processing**	AIA211	Computer and Control Engineering	Automatic Control and Applied Infomatics	Conf.dr. Adrian Burlacu (adrian.burlacu@academic.tuiasi.ro)	UG	2	2	5	Douglas Montgo	Yes, EN	EN

Dean,

prof. Vasile Ion MANTA

Erasmus coordinator

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