

Title:	Computer aided measurements
Lecture hours:	15 lectures + 30 laboratories
Study period: (summer/winter)	Summer or winter
Number of credits:	6
Assessment methods:	Evaluation of projects + tests + exam
Language of instruction:	English
Prerequisites:	Basic knowledge of computers architecture, basic skills in programming
Course content:	<ul style="list-style-type: none"> • Introduction into measurement systems; • Elements of signal analysis and signal conditioning, • Sensors, multisensor systems and networks, • Autonomous, modular and virtual measurement systems, • Measurement cards, generators, acquisition cards, • Interfacies, • Software for computer aided measurements, • Distributed measurement systems, • Examples of real computer aided measurement systems.
Learning outcomes:	Knowledge on basic solutions used for advanced measurement systems supported by computers (hardware and software)
Name of lecturer:	Mariusz Kaczmarek – lectures + Michał Pakuła/Radosław Drelich laboratories
Contact (email address):	mkk@ukw.edu.pl

Literature:	<ol style="list-style-type: none">1. W. Nawrocki, Komputerowe systemy pomiarowe, WKŁ 2002,2. W. Tłaga, W. Winiecki, Systemy pomiarowe, w „Współczesna metrologia. Zagadnienia wybrane”, WNT 2004,3. W. Nawrocki, Rozproszone systemy pomiarowe, WKiŁ, 2006,4. W. Miekczarek, Szeregowe interfejsy cyfrowe, Helion 1993,5. W. Tłaczała. Środowisko LabView TM w eksperymencie wspomaganym komputerowo, WNT 2002,6. T. P. Zieliński, Cyfrowe przetwarzanie sygnałów. Od teorii do zastosowań, WKiŁ 2009.
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