Curriculum Vitae
Mieczyslaw "Mitch" M. Kokar, Ph.D.

Professor Emeritus
Department of Electrical and Computer Engineering
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Research Interests

Cognitive Radios Principles, languages, strategies, techniques and algorithms for the concept of *Ontology-Based Cognitive Radio*. Policy-based control of cognitive radios.

Software Engineering Self-controlling software (specification and design of self-controlling software using the control theory metaphor; policy based control). Formal methods in Software Engineering (formalization of the UML language in category theory, consistency checking). Information Assurance (security policies, policy reconciliation and composition, context/situation based formal reasoning about security).

Semantic Web Technologies and Applications Ontology-based system interoperability and integration. Semantic models of networks. Consistency checking of ontologies.

Information Fusion Situational awareness. Ontology based integration and fusion. Category theory based formalization of multi-source information fusion.

Education

Ph.D. in Computer Systems Engineering, Wroclaw University of Technology, Poland.

M.S. in Electrical and Computer Engineering, Wroclaw University of Technology, Poland.

Graduate courses in mathematics, University of Wroclaw, Poland.

Employment

1984 - 2021, Northeastern University, Professor. Teaching (graduate courses): Software Engineering; Parallel & Multithreaded Programming; Introduction to Formal Methods for Software Engineering; Software Engineering Project; Machine Intelligence; Machine Learning; Expert Systems, Operating Systems; Data Structures.

1991-1992, The MITRE Corporation, Bedford, MA, visiting scientist (sabbatical). Conducted research on sensor/data fusion and on reference models for open systems environments.

1982-1984, Millersville University of Pennsylvania, Associate Professor. Teaching: Programming in Pascal, Fortran and Assembly; Computer Organization; Discrete Mathematics; Data Structures.

1982-1984, HMW Enterprises, Inc., Etters, PA, software engineer. Design and emulation of operating systems of color graphic terminals on the HMW Rainbow terminal.

1969-1981, Wroclaw University of Technology, Poland, Assistant Professor. Teaching: Methodological Foundations of Modeling; Modeling and Optimization of Engineering Systems; Research: Artificial Intelligence, Dimensional Analysis, Systems Science, Modeling. Served as Director of Research and Cooperation with Industry.

Professional Societies

- IEEE - Senior Member

- Association for Computing Machinery - senior member

Recognition and Selected Professional Activities

- Author of over 200 publications in journals and conference proceedings, including two books.

- Member of the Editorial Board of Information Fusion: An International Journal on Multi-Sensor Multi-Source Information Fusion. Area Editor: Information Fusion Theory.

- Recent grants:

  - IDAS: Intent-Defined Adaptive Software, PI, DARPA, 2020 – 2023
  - CONCERTO: CONverged Collaborative Elements for RF Task Operations , Lead PI, DARPA, 2018 – 2019

- Editor of a special issue on High-Level Information Fusion and situation Awareness. International Journal of Information Fusion.

- Advisor to the DARPA XG, DTN, WNaN programs (2005 through 2010).

- Chair of the Working Group on the Modeling Language for Mobility (MLM). Wireless Innovation Forum.

- Served on NSF Review Panels.

- Founding member and Technical Co-Chair. CogSIMA - the IEEE Conference on Cognitive Situation Management.

- General Co-Chair. SIMA - Workshop on Situation Management, IEEE MILCOM conference, October 2005.

- Publicity Co-Chair: KIMAS - Knowledge Intensive Multiagent Systems. Waltham, MA, 2002, 2004, 2006.

- General Chair: 1999 IEEE International Symposium on Intelligent Control, Cambridge, Massachusetts.

- Scientific research impact index (h-index): 38

Languages

- Fluent in English, Polish and Russian

Personal Interests

- Tennis, skiing, windsurfing, mountain biking, dancing.