Software Engineering and Management Information Technology Department

Proposals for cooperation

NTU "KhPI"

SEMIT Department

- Was founded by professor A.V. Dabagyan in **1964**.
- **1964** – "Automatic Control of Movement", specialty "Flight Dynamics and Ballistic Rockets Control"
- **1977** – "Computer-aided Management Systems ", specialties "Computer science" and "Computer-aided Systems Software"
- **2015** – "Software Engineering and Management Information Technologies, specialties "**Computer science**" and "**Software Engineering**".

- Graduates – more than **2000**
- Doctors of science – **20**
- PhD – **80**

Team

Our team combines scholars, researchers, post-docs and assistants who inspires students to achieve their goals.

Head of Department:
Prof. Mykhailo GODLEVSKYI ,Dr. of Tech. Science,
Contacts: e-mail - god_asu@kpi.kharkov.ua, phone/fax +380577076520

Teaching

We provide Education Programs for Bachelors, Masters and PhDs levels in
1. Computer Science
2. Software Engineering

Research

☐ Web-Based Monitoring and Evaluation
☐ Data Mining and Data management
☐ Agent-Oriented Software Development
☐ Processing of weak-structured textual data
☐ Software Engineering Process Improvement

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Current Projects

- ❑ Erasmus+ Programme KA2
  Establishing Modern Master-level Studies
  in Information Systems
  561592-EPP-1-2015-1-FR-EPPKA2-CBHE-JP

- ❑ Erasmus+ Programme KA1
  Higher Education Student and Staff Mobility Inter-institutional agreement between Poznań University
  of Economics and Business and National Technical
  University Kharkiv Polytechnic Institute

- ❑ Erasmus+ Programme KA1
  Higher Education Student and Staff Mobility Inter-institutional agreement between The Alpen-Adria-Universität Klagenfurt and National Technical
  University Kharkiv Polytechnic Institute

Partnership with Business

Publications-1

❑ Tkachuk, M.,Nagornyi, K.,Gamzayev, R. Models, methods and tools for effectiveness estimation of post object-oriented technologies in software maintenance // V. Yakovyna et al. (Eds.): ICTERI 2015: Revised Selected Papers, Series title: Communications in Computer and Information Science, Vol. 594: Springer-Verlag Berlin Heidelberg, 2016. – pp. 20–37.

❑ Tkachuk, M.,Vekshyn, O.,Gamzayev, R. A model-based framework for adaptive resource management in mobile augmented reality system // CEUR Workshop Proceedings, 2016, pp. 41-56.

❑ Atroshenko, O.,Tkachuk, M.,Ustinenko, O.,Bondarenko, O.,Diomina, N. A numerical analysis of non-linear contact tasks for the system of plates with a bolted connection and a clearance in the fixture // EasternEuropean Journal of Enterprise Technologies, ISSN 1729-3774 1/7 (79), 2016, pp. 24-29.

❑ Tkachuk, M.,Nagornyi, K.,Gamzayev, R. Knowledge-based approach to effectiveness estimation of post object-oriented technologies in software maintenance // Proceedings of the ICTERI-2015: 11th International Conference on ICT in Education, Research and Industrial Applications: Integration, Harmonization and Knowledge Transfer, Lviv, Ukraine, May 14-16, 2015, CEURWS.org/Vol-1356, pp.62–77.

Publications-2

❑ Cherednichenko O., Yanholenko O. Information Technology of Web-Monitoring and Measurement of Outcomes in Higher Education Establishment // Proceedings of the conference "EuroSymposium on Systems Analysis and Design", Series Volume 232, 2015, pp. 103-116.

❑ Cherednichenko O., Yanholenko O., Gontar Y. Brain-like Structures for Collection and Automated Processing of Business Information // International Collection of scientific proceedings, Volume 2, 2015. pp. 125-136.

❑ Cherednichenko O., Godlevsky M. A new methodology of complex systems management // International Collection of scientific proceedings, Volume 1 (1), 2015. pp. 75-83.

❑ and others…

Teaching

Bachelor Programs in Computer Science

Information and Management Systems and Technologies

Master Programs in Computer Science

Software Project Management

Business Analysis and Management

Bachelor Programs in Software Engineering

Engineering of Software Systems

Master Programs in Software Engineering

Software of Intelligent Systems

Distributed Software Systems and Technologies

PROPOSALS-1

Research Project "Business Data Mining Based on Web-monitoring and Semi-structured Data Processing"

The research interests cover the area of management of complex systems based on distributed intelligent data processing. The basic research subject is mathematical models of multi-features heterogeneous complex objects.

Until three years ago, the unifying thread of our research interests has been the data management for improvement of business value of information. The main idea of the current research is that traditional approach to management of complex systems must be combined with new mechanisms of collection and intelligent analysis of the data from external sources and distributed processing of it. For instance, it is suggested to consider the web, as an environment, which contains the evidences of enterprise's performance. Now we are studying the perspectives of multiagents technologies for data mining.

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PROPOSALS-2

Research Project "Quality Improvement of Software Development Process"

The research interests cover the area of software development management. The basic research subject is dynamic and static planning models to improve the quality of the software development process in conditions of resource constraints.

The main idea of the current research is that the software development levels and practice might be formalized in order to build flexible improvement plan of IT company. It provides the opportunities to manage of existing resources, increase of resource effectiveness and develop company according to international standards.

Now we are working on verification and validation of developed models, implementation them into real practice of IT company. We study the performance and completeness of the models and develop the expert judgment procedure.

Contacts

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Cooperation – important for quality!