Name: Dr. László Kovács	Year of birth: 1961

Education, diploma issued by, in:

Teacher of Mathematics and Physics, University KLTE, Debrecen (1985)

Current job, current position:

Associate Professor, Department of Information Technology, University of Miskolc

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*),* **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD in Engineering (1996: Dr.-Univ., 1998: Dr.-Ph.D.)

Dr. habil. in Information Sciences (University of Miskolc, 2011)

Experience in education

Experiences in teaching: 24 years.

Subjects taught in Hungarian: Információs rendszerek (Information Systems) , Adatbányászat és adatelemezés (Data Mining and Data Analysis) , Adattárházak (Data Warehouses) , Szövegbányászat (Text Mining) , Programozás alapjai (Foundation of Programming) , Szoftverrendszerek (Software Engineering)

Subjects taught in English: Ontology management (University of Kosice), XML Data Management (College Siauliai) Database Systems (ME, ERASMUS), XML Data Management (ME. ERSAMUS)

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

a) Publications focusing on main research field (max. 5 typical publications):
   1. Hládek D, Staš J, Ondáš S, Juhár J, Kovács L: Learning string distance with smoothing for OCR spelling correction, MULTIMEDIA TOOLS AND APPLICATIONS: AN INTERNATIONAL JOURNAL 2016: pp. 1-19.
   2. Kovács László, Szabó Gábor: Conceptualization with Incremental Bron-Kerbosch Algorithm in Big Data Architecture, ACTA POLYTECHNICA HUNGARICA 13: (2) pp. 139-158.
   3. Kovács László, Joel Ratsaby: Analysis of linear interpolation of fuzzy sets with entropy-based distances, ACTA POLYTECHNICA HUNGARICA 10: (3) pp. 51-64.
   4. Kovács László, Vassilakis C: Function oriented history representation in databases, COMPUTERS AND ARTIFICIAL INTELLIGENCE 19: pp. 417-445.
   5. Kovács László: Rule approximation in metric spaces, In: Szerk.: Szakál A 8th IEEE International Symposium on Applied Machine Intelligence and Informatics (SAMI 2010): Proceedings. Budapest: IEEE Hungary Section, 2010. pp. 49-52.

 b) Any other scientific/research achievement, patents, etc:
   Doctoral dissertations supervised:
   Tóth Zsolt, year of defence: 2015
   Barabás Péter, year of defence: 2013
   Bednarik László, year of defence: 2013
   Baksáné Varga Erika, year of defence: 2011
   Tanja Sieber, year of defence: 2008

 c) Other qualified skill/experiences/honors:
   Role in scientific community:
   Memberships:
   - Editoral Board of international Journals: 7
   - Organisation Committe member: 18
   - Keynote presentation: 8
   - Section chairman: 26

Membership in national boards:
- MAB MRK (Magyar Rektori Konferencia Informatikai Bizottság/Hungarian Rectors' Conference, Committee on Information Sciences),
- OTDT (National Scientific Student Council) Informatika Tudományi Szakmai Bizottság tagja;
- OTDK (National Scientific Student Council) Informatika Tudományi Szekció programbizottsági tag
- HASIT Informatikai Munkacsoport tagja

Membership in local boards:
- MAB Miskolci Bizottság
- ME Informatikai Bizottság
- ME GEIK Beiskolázási Bizottság
- ME GEIK Kreditátviteli Bizottság
- Vadász Dénes Informatikusokért Alapítvány Kuratórium elnöke
- ME GEIK Szakkollégium szakosztályvezetője

Name: Dr. Erika Varga, Baksáné	Year of birth: 1976

Education, diploma issued by, in:

Computer Science Engineer, University of Miskolc, 2000

Current job, current position:

Associate Professor, Department of Information Technology, University of Miskolc

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years)*, **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD in Information Sciences (University of Miskolc 2011)

Experience in education

Experiences in teaching: 12 years
Subjects taught in Hungarian: Programozási alapismeretek (Basics of Programming), C programozás (Programming in C), Objektum-orientált programozás (Object Oriented Programming), Kiadványszerkesztés Latex-ben (Text Processing in Latex), Adatbázis rendszerek (Database Systems), Adattárház rendszerek (Data Warehouses), Vállalati információs rendszerek fejlesztése (EIR Systems)
Subjects taught in English: Data analysis and data mining, Text analysis and text mining

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

a) Publications focusing on main research field (max. 5 typical publications):
Kovács László, S. Ondáš, D. Hládek, J. Staš, J. Juhár, E. Varga Baksáné: SEMANTIC ROLES MODELING USING STATISTICAL LANGUAGE MODELS, In: 3th International Conference on Emerging eLearning Technologies and Applications. Konferencia helye, ideje: Starý Smokovec, Szlovákia, 2015.11.26p. xx.
Kovács László, Baksáné Varga Erika: Induction of Probabilistic Context-free Grammar Using Frequent Sequences, In: Calin Enachescu, Florin-Gheorghe Filip, Barna Iantovics (szerk.) Advanced Computational Technologies. Bucuresti: Romanian Academy Publishing House, 2012. pp. 76-88. (ISBN:978-973-27-2256-5)
Kovács László, Baksáné Varga Erika: Modelling generalization and spezialization with extended conceptual graph, CENTRAL EUROPEAN JOURNAL OF COMPUTER SCIENCE 2:(3) pp. 245-260. (2012)
BAKSA-VARGA E, KOVÁCS L: Generalization and Specialization Using Extended Conceptual Graphs, In: Valerie Novitzká, Štefan Hudák (szerk.) Proceedings of the 11th International Conference on Informatics 2011. Konferencia helye, ideje: Rožnava, Szlovákia, 2011.11.16-2011.11.18. Kassa: Technical University of Kosice Faculty of Electrical Engineering and Informatics, 2011. pp. 179-184. (ISBN:978-80-89284-94-8)
Baksa-Varga Erika, Kovács László: Knowledge base representation in a grammar induction system with extended conceptual graph, BULETINUL STIINTIFIC AL UNIVERSITATII POLITEHNICA DIN TIMISOARA ROMANIA SERIA AUTOMATICA SI CALCULATORAE 67:(2) pp. 107-114. (2008)

b) Any other scientific/research achievement, patents, etc:
Baksáné Varga Erika: Ontology-based semantic annotation and knowledge representation in a grammar induction system, PhD Dissertation, 116 p.

Name: Dr. Samad Dadvandipour	Year of birth: 1957

Education, diploma issued by, in:

Mechanical Engineer, University of Miskolc, 1994

Current job, current position:

Associate Professor, Department of Information Engineering / Institute of Information Science, Faculty of Mechanical Engineering / University of Miskolc-Hungary,

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*)*, **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD, Public academic member of Hungarian Academy of Sciences (MTA)

Experience in education

<u>Teaching Subjects</u> **(in English language):**

University of Miskolc, Hungary (from 2011 till now): Artificial Neural Network; Digital Manufacturing; Production Systems and Processing; Enterprice Application Integration; Intelligent Vehicles; Modeling of Production Processes; Introduction to Technical English; Artificial Intelligence; Production Control and Cheduling; Computer Studies; Computer Aided Production Control.

University of Tabriz and University of Azad (2004–2011): Mechatronics-I-II; Foundamentals of Manufacturing Systems; Mechanical Engineerig and Manufacturing Technology; Computer Integrated Manufacturing Systems (CIM); Computer Aided Design (CAD); Computer Aided Process Planning (CAPP); Information Technology (IT); Artificial Intelligence; Fuzzy Logics; CAD/CAM; Basics of Computer Engineering; Plasticity and Metal Forming; Technical English (Production Desing and Manufacturing, Solid Mechanics, Fluid Mechanics); Manufacturing Control; Manufacturing Desing.

University of Miskolc, Hungary (2000-2004): Artificial Intelligence; Artificial Neural Networks and Neuro-Fuzzy; Material Science, Computer Integrated Manufacturing, Information Science.

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

a) Publications focusing on main research field (max. 5 typical publications):
1. Samad Dadvandipour, Samad Nadimi Bavil Oliaei, Bahram Lotfi Sadigh Szerk.: Samad Dadvandipour, Szerk.: Samad Nadimi Bavil Oliaei, Szerk.: Bahram Lotfi Sadigh: **An Ontology Based Semantic Machine Tool Selection for Multi Scale Wire EDM Processes**, Athens: Trans Tech Publications, 8 p. (Solid State Phenomena (Volume 261)) IX, Precision Machining. (2017)
2. Dadvandipour Samad: **Experimental Applications of Artificial Neural Networks in Engineering Processing System**, REVIEW OF FACULTY OF ENGINEERING ANALECTA TECHNICA SZEGEDINENSIA 8: (2) pp. 28-33. pp. 28-33. (2014)
3. Dadvandipour Samad: **DETAILED ANALYZING OF SMALL COMPONENTS IDENTIFICATION USING IMAGE CAPTURING PROCESS SYSTEM (S093)**, In: Szerk.: Hans Weghorn, Szerk.: Pedro Isaias Applied Computing 2012 Proceedings: Proceedings of the IADIS International Conference Applied computing. Lisszabon: IADIS Press, 2012. pp. 375-379. (2012)
4. Samad Dadvandipour, N Khalili Dizaji, S Rosshan Entezar: **An approach to optimize the proportional-integral-derivative controller system**. In: Szerk.: Ivo Petras, Szerk.: Igor Podlubny, Szerk.: Jan Kacur, Szerk.: Vásárhelyi József Proceedings of the 16th International Carpathian Control Conference. Miskolc: IEEE IAS/IES/PELS, 2015. pp. 95-99. (2015)
5. Dadvandipour Samad, Nadimi S. Boveli: **On the Experimental Study of Electric Discharge Machining (EDM) of P20 Type Tool Steel**. In: Szerk.: Anikó Szakál Proceedings of the IEEE 11th International Symposium on Applied Machine Intelligence ¥end Informatics (SAMI 2013). Budapest: IEEE Hungary Section, 2013. pp. 245-248. (2013)

b) Any other scientific/research achievement, patents, etc:

Research Activities:
- Image Processing System (IPS);
- Image Processing System and Neural Networks;
- Electro-Discharge Machining Processing (EDM);
- Integration of CAPP and CAPC in Discrete Manufacturing Systems;
- Optimization of Total Cost of Turning Processes using Design and Mathematical Analysis;
- Desing and Manufacturing of TI-135 Type Truck Exhaust and Intake Pipes Using CAD/CAM Systems;
- Simulation and Optimization of Non-Linear Motion of Four-Axis Scara Robot;
- Experimental Process of EDM (Electro-Discharge Machining) with different kinds of electrodes.

Projects Activities:
- Solving Some Optimization Problems of CAPP in CIM Environment (a Part of PhD-thesis);
- Notch Effect on The Reliability of Quasi-Static Loaded Structures (a Part of PhD-thesis);
- Analysing and Documenting of Simple and Complex Industrial Components Using Finate Element Method (Bay Zoltan Interior Project);
- Hungary-Turkey R&D Inter-governmental Project: Developing of CAQC Softwer for Elimination Turning Process Error;
- Hungary-Greece R&D Inter-governmental Project: Notch Effect in Engineering Structure;
- EU Inco-Copernicus Project: Hungary, Germany, Slovenia and Belgium: Rapid Sheet Metal Product Development Chain by Laser Sintered Prototype Tool;
- Hungary-Germany R&D Inter-governmental Project: Abrasive Water Jet Cutting Systems in CAD/CAM Environment;
- TAMOP–4.2.1.B-10/2/KONV-2010-0001;
- MeMOOC project (TÁMOP-4.1.2. F-15/1-2015-0001);
- Faculty Coordinator and Reference for Stipendium Hungaricum Project, University of Miskolc (from 2013 untill now).

c) Other qualified skill/experiences/honors:

Scientific Memberships:
1. MTA–Hungarian Academy of Science, III. Mathematic Department, Computer Science and Information Technology Commission, Information Science {Focused on Computer Integated Manufacturing System (CIM)}. Research areas: Production Information and Optimisation, Computer Aided Process Planning (CAPP), Neural Networks, Image Processing System (IPS) (www.mtakpa.hu/kta/kereso/list.php);
2. ASM International–American Society of Material Science (1989–2002) (www.asminternational.org);
3. ITCA–Information Technology Center of Azerbaijan, (ITC), (2002–2011) (www.iranu.com);
4. AAAS–American Association for the Advancement of Science (2006–) (http://www.aaas.org/).

Name: Dr. Sándor Fegyverneki	Year of birth: 1960

Education, diploma issued by, in:

Applied mathematician and English-Hungarian translator, KLTE, 1984

Current job, current position:

ME-GEIK, Institute of Mathematics, associate professor

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*)*, **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD, mathematics and computer science, 2001, University of Debrecen.

Experience in education

- Classes taught in Hungarian (33years): Mathematics, Probability theory, Information theory, Numerical methods, Theory of programming, Mathematical statistics.
- Notes for students in English:
  1. Fegyverneki S. (1987): Introduction to the function theory, NME, Miskolc, pp.1-87
  2. Fegyverneki S. (1989): Collections of problems in probability theory, NME, Miskolc, pp.1-114
  3. Fegyverneki Sándor (2011): Probability Theory and Mathematical statistics, electronic note, TÁMOP 4.1.2-08/1/A-2009-0033 project
- Teaching in a foreign language (English): University of Miskolc, Mathematics I-III (5 év), Probability Theory and Mathematical Statistics (4years), Computer Science (3years), Information Theory (3 years).

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

a) Publications focusing on main research field (max. 5 typical publications):
  1. Fegyverneki Sándor: Robust estimators for location and scale of Cauchy distribution, MISKOLC MATHEMATICAL NOTES 14: (2) pp. 36-42. Impact factor: 0.304, 2013
  2. Csendes Csilla, Fegyverneki Sándor: Parameter Estimation for Symmetric Stable Distributions by Probability Integral Transformation, In: Bognár Gabriella, Tóth Tibor (szerk.) Applied Information Science, Engineering and Technology: Series: Topics in Intelligent Engineering and Informatics, Vol.7. Switzerland: Springer Verlag, 2013. pp. 1-18. 2013
  3. L. Szabó, S. Fegyverneki (1995): Maximum and average urine flow rates in normal children - the Miskolc nomograms, British J. of Urology, 76, pp.16-20. Impact factor: 1.282
  4. M. Arató, S. Fegyverneki (2002): New statistical investigation of Ornstein-Uhlenbeck process with simulations, Comput. Math. Applic., Vol. 44., pp.677-692. Impact factor: 0.309.
  5. S. Fegyverneki (2003): Robust estimators and probability integral transformation, Math. Comput. Modelling,Vol. 38, pp.803-814. Impact factor: 0.325.

b) Any other scientific/research achievement, patents, etc:
  - Number of scientific papers: 60
  - Cumulative impact factor: 2.6
  - Independent citations in journals: 93
  - Number of scientific reports: 15

Name: Dr. Attila Házy	Year of birth: 1976

Education, diploma issued by, in:

Mathematician, KLTE, 1999

Current job, current position:

ME, GÉIK, Department of Applied Mathematics - associate professor

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*)*, **membership of the Academy of Sciences/Art** (the title of „dr. habil”, DSc; specifying the field of science and date, other titles)

PhD, Mathematics and Computer Sciences, 2005

Experience in education

Lectures and classes in mathematics: Numerical analysis, Numerical Methods of Linear Algebra, Operations Research, Continuous Optimization, Discrete Optimization, Analysis, Differential Equations, Calculus, Theory of Probability, Applied mathematics, Econometrics. (in Hungarian)

Lectures and classes in informatics: Introduction to the Theory of Programming, Combinatorial Algorithms, Complexity of Algorithms, Theory of Algorithms, Computation Theory, Data Structures and Algorithms, Methodology of Programming, Design of Programming. (in Hungarian)

Complexity of Algorithms, Data Structures and Algorithms (in English)

Experience: 16 years

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

a) Publications focusing on main research field (max. 5 typical publications):

  [1] J. Makó, A. Házy: *On approximate Hermite-Hadamard type inequalities*, Journal of Convex Analysis 24 (2017), No. 2, 349-363

  [2] P. Burai, A. Házy: *On approximately h-convex functions*, Journal of Convex Analysis 18 (2011), no. 2. 447 – 454. [IF: 0.900]

  [3] A. Házy, Zs. Páles: *On a certain stability of the Hermite–Hadamard inequality*, Proceedings of the Royal Society A 465 (2009) 571 – 583. [IF: 1.705]

  [4] A. Házy, Zs. Páles: *On approximately midconvex functions*, Bulletin of London Mathematical Society 36 (2004), vol 3., 339 – 350. [IF: 0.404]

  [5] A. Házy: *Solving linear two variable functional equation with computer*, Aequationes Mathematicae 67 (2004), 47 – 62.

 b) Any other scientific/research achievement, patents, etc: -

c) Other qualified skill/experiences/honors:

  [1] Scientic Prize by Hungarian Academy of Sciences, Regional Committee in Miskolc (2006)

  [2] ISFE-medal by The Scientic Committee of the International Symposium on Functional Equations (2008)

  [3] Farkas Gyula Prize by János Bolyai Mathematical Society (2008)

  [4] scholarship from the Hausdorff Center for Mathematics, Bonn, Germany (2008, 4 Month)

  [5] Bolyai Research scholarship (2012-2015)

  [6] Alexits György Prize by Hungarian Academy of Sciences (2014)

Name: Dr. Olivér Hornyák	Year of birth: 1973

Education, diploma issued by, in:

Mechanical Enginner ME, 1997

Current job, current position:

Department of Information Engineering / Institute of Information Science, University of Miskolc; Associate Professor,

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*),* **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD in Information Sciences (University of Miskolc 2003)

Experience in education

Experiences in teaching: 21 years

Subjects taught in Hungarian:

Minőségmenedzsment és informatika (Quality Management in Information Technology), Számítógépes gyártásirányítás (Computer-based Production Management), Termelési rendszerek és folyamatok (Production Systems and Processes), Műszaki kommunikáció (Technical Communication), Számítógépes termelésirányítás (Computer Production Management), Termelési rendszerek és folyamatok (Production Systems and Processes), Modern szoftverfejlesztési módszerek (Modern Software Development Methods), Valósidejű diszkrét folyamatirányító (MES) rendszerek (Real Time Discrete Process Control (MES) Systems)

Subjects taught in English*:*

Computer Science, Computer Aided Process Control, Manufacturing Execution Systems, Quality Assurance for Information Technology

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

a) Publications focusing on main research field (max. 5 typical publications):Oliver Hornyak - Ferenc Erdelyi - Gyula Kulcsar: **Behaviour Based Control for Uncertainty Management in Manufacturing Execution System**, Proceedings of MITIP 8. International Conference, Budapest, pp. 73-81., pp. 73-81, 2006Tóth, T., Hornyák, O., Buza, Á.: **A számítógépes termeléstervezés és termelésirányítás alapjai**, Miskolc, Szakmérnöki jegyzet, p174., 174 p., 2006

Oliver Hornyak - Gabor Safrany: **Group technology for automated generation of machine controller code**, 5th International Symposium on Applied Computational Intelligence and Informatics. May 28–29, pp 17 - 22 2009 – Timisoara, Romania

Erdélyi Ferenc, Tóth Tibor, Kulcsár Gyula, Mileff Péter, Hornyák Olivér, Nehéz Károly, Körei Attila: **Új modellek és módszerek az igény szerinti tömeggyártás hatékonyságának növelésére.** Gépgyártás, ISSN 1587-4648 , 2009. (49. évf.) 2. sz. 3-10. old.

Király Sándor, Nehéz Károly,Hornyák Olivér: **Some aspects of grading Java code submissions in MOOCs**; Research in Learning Technology 25: pp. 1-16. (2017)

Josep Lluis de la Rosa, Víctor Torres-Padrosa, Andrés El-Fakdi, Denisa Gibovic, Lutz Maicher, Olivér Hornyák, Francesc Miralles: **A Survey of Blockchain Technologies for Open Innovation;** In: 4th Annual World Open Innovation Conference, WOIC 2017. Konferencia helye, ideje: San Francisco (CA), Amerikai Egyesült Államok, 2017.12.14-2017.12.15. San Francisco (CA): pp. 1-27.

Name: Dr. Szilveszter Kovács	Year of birth: 1964

Education, diploma issued by, in:

M.Sc. in Electrical Engineering, Faculty of Electrical Engineering, Technical University of Budapest (1989),

Spec.M.Phil. in Computer Engineering, Faculty of Informatics and Electrical Engineering, Technical University of Budapest (1993)

Current job, current position:

Associate Professor, Department of Information Technology, University of Miskolc

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*)*, **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

Ph.D. in Engineering (1996: Dr.-Univ., 1998: Dr.-Ph.D.)

Dr. habil. in Information Sciences (University of Miskolc, 2011)

Experience in education

Subjects taught in Hungarian: Számítógép architektúrák (Computer Architectures), Számítógép hálózatok (Computer Networks), Számítógép hálózatok tervezése és üzemeltetése (Desing and Managing of Computer Networks), Számítógép hálózat üzemeltetési alapismeretek (Admimistration of Computer Networks), Operációs rendszerek és hálózatok (Operating Systems and Computer Networks), Intelligens számítási módszerek (Soft Computing Methods), Fuzzy rendszerek (Fuzzy Systems)

Subjects taught in English: Operating Systems and Networks

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

a) Publications focusing on main research field (max. 5 typical publications):
1. Kovács, Sz.: Fuzzy Rule Interpolation, Article in the "Encyclopedia of artificial intelligence" (Juan Ramon Rabunal Dopico, Julian Dorado de la Calle, and Alejandro Pazos Sierra, editors), Information Science Reference, IGI Global, Hershey, New York, ISBN 978-1-59904-849-9, pp. 728-733, (2008).
2. Kovács, Sz.: Fuzzy Rule Interpolation from a Practical Point of View, Acta Universitas Jaurinensis, Series Intelligentia Computatorica, Vol. 1, No. 3, ISSN 1789-6932, pp. 595-611, (2008).
3 Péter Korondi, Beáta Korcsok, Szilveszter Kovács, Mihoko Niitsuma: Etho-robotics: What kind of behaviour can we learn from the animals? IFAC-PAPERSONLINE (ISSN: 2405-8963) 48: (19) pp. 244-255. (2015).
4. Kovács, Sz.: Extending the Fuzzy Rule Interpolation "FIVE" by Fuzzy Observation, Advances in Soft Computing, Computational Intelligence, Theory and Applications, Bernd Reusch (Ed.), Springer Germany, ISBN 3-540-34780-1, pp. 485-497, (2006).
5. Sz. Kovács: Interpolative Fuzzy Reasoning in Behaviour-based Control, Advances in Soft Computing, Vol. 2, Computational Intelligence, Theory and Applications, Bernd Reusch (Ed.), Springer, Germany, ISBN 3-540-22807-1, pp.159-170, (2005).

b) Any other scientific/research achievement, patents, etc:
Doctoral dissertations supervised:
Johanyák Zsolt Csaba, year of defence: 2007
Dávid Vincze, year of defence: 2014
Zoltán Krizsán, year of defence: 2014

c) Other qualified skill/experiences/honors:
Role in scientific community:

1993 - 1994 Member of the Information Systems Committee of the University of Miskolc
1994 - 1999 Acting member of the NIIF Technical Committee
1996 - 2000 Chairmanship member of B.A.Z. County Chamber of Engineers
1998 -   Member of the EURO (The Association of European Operational Research Societies) Working Group on Fuzzy Sets (EUROFUSE)
2001 -   Founding member of the Integrated Intelligent Systems, Japanese-Hungarian Joint Laboratory (IISL)
2001 -   Member of the Hungarian Fuzzy Association
2004 - 2007 Member of the Hungarian National Scientific Research Fund (OTKA) Electronical-Electrotechnical Jury
2007 -   Vice-president of the Hungarian Fuzzy Association
2008-   Member of the Editorial Board, Journal of Advanced Computational Intelligence and Intelligent Informatics (JACIII), ISSN: 1343-0130, Honorary Editor :Lotfi A. Zadeh (University of California) , Editor-in-Chief :Toshio Fukuda (Nagoya University), Kaoru Hirota (Tokyo Institute of Technology)

Name: Sándor Lajos	Year of birth: 1967

Education, diploma issued by, in:

Mechanical engineer, University of Miskolc, 1991

Current job, current position:

University of Miskolc, Institute of Mathematics, Department of Descriptive Geometry, master instructor

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*)*, **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

-

Experience in education

- 1991-2004   Practical course on Computer Graphics and Geometry;
- 1991-2000   Lecture and Practical course on Interactive CAD/CAM systems;
- 2001-2004   Lecture and practical course on CAD Systems;
- 2001-2005   Practical course on Technical Documentation;
- 2006-2011   Lecture and practical course on Technical Documentation;
- 2006-2013   Practical course on Fundamentals of CAD;
- 2008-   Practical course on Descriptive Geometry;
- 2012-   Practical course on Geometric Modelling;
- 2014-   Lecture and practical course on Basics of Technical Description;
- 2014-   Lecture and practical course on Fundamentals of CAD;
- 2015-   Practical course on Geometric Modelling (in english);
- 2016-   Practical course on Introduction to CAD systems.

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

a) Publications focusing on main research field (max. 5 typical publications):
Bancsik, Zs., Juhász, I., Lajos,S.: Ábrázoló geometria szemléletesen, elektronikus könyv, http://193.6.8.43/segedlet/dokumentumok/Abrazolo_geometria_szemleletesen.php, 2007., 609 p.

Lajos, S.: Converting VRML Models to VR Environment, in The Publications of the XXVI. microCAD International Scientific Conference, Section J: Material flow systems. Logistical information technology and technical language #17, p. 6, 29-30 March 2012, Miskolc.

Lajos, S.: Logisztikai berendezések CAD modelljeinek konvertálása virtuális valóság környezetbe, GÉP LXIII. évfolyam, 2012., 4. szám, pp. 67-70

Skapinyecz, R., Lajos, S., Tamás, P., Illés, B.: A Miskolci Egyetemen kialakított Virtuális Logisztikai Laboratórium felhasználási lehetőségeinek bemutatása, GÉP LXIV. évfolyam, 2013., 1. szám, pp. 15-18.

Name: Dr. Péter Mileff	Year of birth: 1981

Education, diploma issued by, in:

M.Sc. In Information Engineering University of Miskolc, 2004

Current job, current position:

ME, GÉIK Department of Information Technology - associate professor

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*)*, **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD (information science) 2008 – University of Miskolc

Experience in education

Lecturer since 2008 (ME). Main subjects (ME): Software Technology, Software Development, Graphics Programming, Web Applications, Parallel and Distributed Systems, Unix/Linux system administration.
Courses in english (ME): Graphics Programming, Software Engineering

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

a)   Publications focusing on main research field (max. 5 typical publications):
1. Péter Mileff, Károly Nehéz, Judit Dudra (2015), Accelerated Half-Space Triangle Rasterization, Acta Polytechnica Hungarica, Volume 12, Issue Number 7, 2015, pp. 217-236.

2. Mileff Péter, Dudra Judit (2014), Egyszerusített voxel alapú vizualizáció, Multidiszciplináris tudományok, 4. kötet. (2014) 1. sz. pp. 125-134.

3. Péter Mileff, Judit Dudra (2014), Advanced 2D Rasterization on Modern CPUs, Applied Information Science, Engineering and Technology: Selected Topics from the Field of Production Information Engineering and IT for Manufacturing: Theory and Practice, Series: Topics in Intelligent Engineering and Informatics, Vol. 7, Chapter 5, Springer International publishing, pp. 63-79. 2014.

4. Mileff Péter, Dudra Judit (2013), Osztott 2D Raszterizációs modell többmagos processzorok számára, Multidiszciplináris tudományok, 3. kötet. (2013) 2. sz. pp. 259-268.

5. Péter Mileff, Judit Dudra (2012), Modern Software Rendering, Production Systems and Information Engineering, Volume 6, pp. 55-66., 2012.

Name: Dr. Sándor Radeleczki	Year of birth: 1959

Education, diploma issued by, in:

Mathemtician, Mathematics and informatics teacher, University of Babeş-Bolyai, Kolozsvár, 1983

Current job, current position:

University of Miskolc, Faculty of Mechanical Engineering and Informatics, Institute of Mathematics, professor

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*)*, **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

CSc (Mathematics) MTA, 1996, Dr. Habil, 2009

Experience in education

Subjects taught in Hungarian:
Numerikus módszerek (Numerical Methods), Analízis (Mathematical Analysis), Lineáris Algebra (Linear Algebra), Diszkrét Matematika I és II (Discrete Mathematics), Automaták és Formális Nyelvek (Formal Languages and Automaton), Discrete Mathematics, Matematikai Logika (Mathematical Logic), Matematikai logika és alkalmazásai (Phd) (Mathematical Logic, and applications(PhD))
Subjects taught in English:
Mathematical Logic, Discrete Mathematics (Tampere University of Technology, University of Silesia). Lattice theoretical methods in Computer Science (University of Turku)

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

a) Publications focusing on main research field (max. 5 typical publications):

   1. Jákubiková-Studenovská, D., Pöschel, R. and Radeleczki, S.: The lattice of congruence lattices of algebras on a finite set , Algebra Universalis, in print.
   2. Järvinen, J., Radeleczki, S.: Representation of Nelson algebras by rough sets determined by quasiorders, Algebra Universalis, 66 (2011), 163-179.
   3. Czédli G., Horváth K. E. and Radeleczki S.: On tolerance lattices of algebras in congruence modular varieties, Acta Mathematicae Hungarica, 100 (2003), 9-17.
   4. Radeleczki, S., Szigeti, J.: Linear orders on general algebras, Order, 22 (2005), 41-62.
   5. Radeleczki S.: The direct decomposition of L-algebras into products of subdirectly irreducible factors, Journal of Australian Math. Soc. Ser A., 75 (2003), 41-56.

 b) Any other scientific/research achievement, patents, etc:
   ·   Az MTA Miskolci Akadémiai Bizottsága, Matematikai Szakbizottságságának a tagja vagyok 1998-2002 és 2006-2012 között ennek a Szakbizottságnak a titkára.
   ·   A „Kutatási Lehetőségek Középiskolásoknak" nevű országos testület egyik mentora vagyok (2003-tól),
   ·   A Hatvany József Informatikai Tudományok Doktori Iskolában. 2009-től a törzstagja vagyok.

c) Other qualified skill/experiences/honors:
   ·   Fiatal kutatók a Magyar Tudományért, MTA / Young researchers for the Hungarian Science (1998);
   ·   MTA Bolyai János Kutatói Ösztöndíja/ Bolyai Research scholarship (1999-2002);
   ·   MTA Széchenyi István Docensi Ösztöndíja (2002-2005)
   ·   Nagybánya (Baia-Mare) megyei jogú város önkormányzatának a díja (2002);
   ·   A Miskolci Egyetem kiváló kutatója (2011).

Name: Dr. József Vásárhelyi	Year of birth: 1958

Education, diploma issued by, in:

Electrical engineer in the field of low power and telecommunication systems, Technical University of Cluj, Romania, 1983

Current job, current position:

University of Miskolc, Faculty of Mechanical Engineering and Informatics, Institute of Automation and Infocommunication – Accociate Professor

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years)*, **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD (Electrical engineering sciences), 2004)

Experience in education

Lectures: Digital systems, (BSc), Embedded systems (BSc, Msc – in Hungarian), Programmable logic (BSc), Embedded systems and architectures (Msc in Hungarian), Embedded systems and Architectures (MSC – in Hungarian and English), Programmable Logic (Erasmus – in English), Embedded systems (Erasmus – in English)

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

a) Publications focusing on main research field (max. 5 typical publications):

Ahmed Bouzid, <u>József Vásárhelyi</u>, Roland Bartók, László Czap: Pose Determination for Autonomous Vehicle Control, LECTURE NOTES IN MECHANICAL ENGINEERING F12: pp. 333-339. (2017), Vehicle and Automotive Engineering. Miskolc-Egyetemváros, Magyarország: 2016.11.17 -2016.11.18. (ISBN 978-3-319-51188-7)

Bartók Roland, <u>Vásárhelyi József,</u> Two Methods for Autonomous Robot Obstacle Sensing and Application Programming Interface for Fuzzy Rule Interpolation, In: Dan Popescu, Dorin Şendrescu, Monica Roman, Elvira Popescu, Lucian Bărbulescu (szerk.) 2017 18th International Carpathian Control Conference (ICCC). Konferencia helye, ideje: Sinaia, Románia, 2017.05.28-2017.05.31. (IEEE Computational Intelligence Society), Craiova: IEEE, 2017. pp. 87-92.(ISBN:978-1-5090-5825-9)

Bartók Roland, <u>Vásárhelyi József,</u> A fuzzy rule interpolation base algorithm implementation on different platforms, In: Ivo Petras, Igor Podlubny, Jan Kacur, <u>Vásárhelyi József</u> (szerk.), Proceedings of the 16th International Carpathian Control Conference. Konferencia helye, ideje: Szilvásvárad, Magyarország, 2015.05.27-2015.05.30. Miskolc: IEEE IAS/IES/PELS, 2015. pp. 37-40. (ISBN:978-1-4799-7369-9)

<u>Vásárhelyi József</u>, Végh János, Clock Around Embedded Systems and Reconfigurable Systems, In: Domokos József, Forgó Zoltán, Bakó László (szerk.), 4th International Conference on Recent Achievements in Mechatronics, Automation, Computer Science and Robotics (MACRO), 2013. Konferencia helye, ideje: Tirgu-Mures, Románia, 2013.10.04-2013.10.05. Tirgu-Mures: Sapientia Hungarian University of Transylvania, 2013. pp. 111-114.

<u>Vásárhelyi József,</u> Proiectarea cu circuite logice programabile: Programmable logic Design, Kolozsvár: Albastra, 1998. 179 p., (ISBN:973-9215-79-3)

b) Any other scientific/research achievement, patents, etc:
    IEEE International Carpathian Control Conference – conference chair (2010, 2015, 2018)

Best paper: <u>Vásárhelyi József</u>, Végh János, Clock Around Embedded Systems and Reconfigurable Systems, In: Domokos József, Forgó Zoltán, Bakó László (szerk.), 4th International Conference on Recent Achievements in Mechatronics, Automation, Computer Science and Robotics (MACRO), 2013. Konferencia helye, ideje: Tirgu-Mures, Románia, 2013.10.04-2013.10.05. Tirgu-Mures: Sapientia Hungarian University of Transsylvania, 2013. pp. 111-114.

c) Other qualified skills/experiences/honors:

1986 – 1991 - Electrosigma R.T. Design and technology department – design and production engineer

Name: Dr. Szilvia Árvai-Homolya	Year of birth: 1976

Education, diploma issued by, in:

Teacher of Mathematics and German, Lajos Kossuth University (KLTE), Debrecen, 1999

Current job, current position:

University of Miskolc, Faculty of Mechanical Engineering and Informatics, Institute of Mathematics, Departmen of Analysis - associate professor

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*),* **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD (mathematical and computational sciences) 2007

Experience in education

Time spent in education: continuously since 1999 (23 years)
Lectures and seminars in BSc and MSc programs: Analysis I, II. , Discrete mathematics, Linear algebra, Mathematics for Economists I, Mathematics I, II, III, IV, Mathematical logic and its applications, Probability calculation
Lectures PhD programs: Discrete mathematics I, II
1997/1998. in the 1st semester of the academic year in Germany at the Institute of Mathematics of the Friedrich Alexander University (Erlangen): Algebra and Geometry seminars as a demonstrator.

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

d) Publications focusing on main research field (max. 5 typical publications):

• Homolya Sz.; Szigeti J.: A variant of Rosset's approach to the Amitsur-Levitzki theorem and some Z2-graded identities of Mn(E), Turkish Journal of Mathematics 46 : 5 pp. 1864-1870 (2022) doi:10.3906/mat-2110-81
• Homolya Sz. ; Szigeti J. ; van Wyk L. ; Ziembowski M.: Lie Properties in Associative Algebras, Journal of Algebra 573 pp. 492-508 (2021) https://doi.org/10.1016/j.jalgebra.2021.01.002
• P. T. Nagy, Sz. Homolya: Geodesic vectors and subalgebras in two-step nilpotent metric Lie algebras, Advances in Geometry 15 (1), 121-126 (2015) https://doi.org/10.1515/advgeom-2014-0028
• Sz. Homolya, O. Kowalski: Simply connected two-step homogeneous nilmanifolds of dimension 5, Note di Matematica 26 (1), 66-77 (2006)
• Sz. Homolya, P. T. Nagy: Submersions on nilmanifolds and their geodesics, Publicationes Mathematicae Debrecen, 62, pp. 415-428, (2003)

 e) Any other scientific/research achievement, patents, etc:

• György Hajós National Mathematics Competition competition committee member (2010, 2012)
• OTDK Engineering Mathematics committe member (2019, 2021)
• MAB Scientific Award for outstanding scientific outcomes. (MAB Miskolc), 2015)
• Signum Aureum Facultatis Mechanicae Universitatis Miskolciensis award, Faculty of Mechanical Engineerind and Informatics 2021
• Signum Aureum Universitatis award, University of Miskolc, 2022

Name: Dávid Gégény	Year of birth: 1991

Education, diploma issued by, in:

Computer Science Engineer MSc, University of Miskolc, 2017

Current job, current position:

ME, GÉIK, Institute of Mathematics – assistant lecturer

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years)**, membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

Experience in education

Practical courses in Hungarian: Linear algebra and discrete mathematics, Discrete mathematics, Mathematical analysis, Mathematics for Economics
Subjects for part-time students in Hungarian: Automata and formal languages

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

f)   Publications focusing on main research field (max. 5 typical publications):

Gégény, Dávid; Piller, Imre; Radeleczki, Sándor; Veres, Laura
Approximations Induced by Tolerance Relations
In: Rough Sets : International Joint Conference, IJCRS 2019, Debrecen, Hungary, June 17–21, 2019, Proceedings

Gégény, D.; Piller, I.
Approximation lattices defined by tolerances induced by irredundant coverings
Miskolc Mathematical Notes 20 : 1 pp. 245-254. , 10 p. (2019)

Gégény, Dávid; Kovács, László; Radeleczki, Sándor
Notes on the lattice of fuzzy rough sets with crisp reference sets
International Journal of Approximate Reasoning 126 pp. 124-132. , 9 p. (2020)

Gégény, Dávid; Radeleczki, Sándor
Rough L-fuzzy sets: Their representation and related structures
International Journal of Approximate Reasoning 142 pp. 1-12. , 12 p. (2022)

 g) Any other scientific/research achievement, patents, etc:

Name: Dr. Gábor Pszota	Year of birth: 1977

Education, diploma issued by, in:

Physics and English Language Translattor, University of Debrecen , 1977

Current job, current position:

University of Miskolc, Faculty of Mechanical Engineering and Informatics

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*),* **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD (Physic) 2008 (Purdue University, USA)

Experience in education

2001-2008 Purdue University, USA
- mechanics and electromagnetism practice and laboratory (Department of Physics)
- multivariable differential and integral calculus practice (Department of Mathematics)
2008-2011 Wooster School and Brunswick School, USA
- high school physics and mathematics
2011- University of Miskolc, GÉIK, Institute of Physics and Electrical Engineering
- Physics I-II internship (earth science, technical manager, IT engineer, electrical engineer)
- Physics I-II lecture (technical manager, IT engineer, electrical engineer)
- General Physics I-II practice (mechanical engineering, mechatronics)
- Electrodynamics (electrical engineer MSc correspondence)
- ERASMUS: Mechanics and Thermodynamics, Electromagnetism and Optics

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

h)   Publications focusing on main research field (max. 5 typical publications):

-        Pszota, G., Zhang, H., Yuan, F., Cui, W.: Origin of X-ray emission from transient black hole candidates in quiescence. 2008, MNRAS, 389, 423
-        Pszota, G. & Cui, W. Modeling the Accretion Disk X-ray Continuum of Black Hole Candidates. 2007, ApJ, 663, 1201
-        Pszota G. & Majár J.: Twin paradox for a realistically accelerating space travel, Multidiszciplináris tudományok, 9. kötet. (2019) 4 sz. pp. 250-260
-        Pszota Gábor: Determination of the drag coefficient by analysing the trajectory of a football, Multidiszciplináris tudományok, 10. kötet.(2020) 4 sz.pp. 92-103

 i)   Any other scientific/research achievement, patents, etc:

-        XMM-Newton, INTEGRAL, RXTE műholdak adatelemzése, spektrometria

Name: László Smid	Year of birth: 1974

Education, diploma issued by, in:

M.Sc. in Information Engineering, University of Miskolc, 1998

Current job, current position:

University of Miskolc, Faculty of Mechanical Engineering and Informatics, Institute of Information Science – master instructor

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*), **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

--

Experience in education

24 years of experience in higher education, since 1998
Subjects taught in Hungarian: Operating systems, Computer architectures, Programming basics, Object-oriented programming, C# programming, e-Business applications, Database systems, Data warehouse systems, Computer integrated logistics

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

j) Publications focusing on main research field (max. 5 typical publications):

1.   CSELÉNYI, J., KOLCZA, G., SMID, L.: Application of Data Mining at Portal Robot Aided Inhomogeneous Loading Unit Bilding, Logistic Network, 2004, Miskolci Egyetem, ISBN 963 661 641 8, pp. 315-324

2.   SMID L., CSELÉNYI J., KOLCZA G.: Application of Data Mining at Portal Robot Aided Inhomogeneous Loading Unit Building Modelling and Optimisation of Logistic Systems 2005, ISBN 963 661 641 8, pp. 315-324

3.   SMID, L., CSELÉNYI, J., KOVÁCS, L.: Simulation Method and Using the Results for Determination of Number of the Buffer Tracks at Portal Robot Aided Formation of Homogeneous Loading Units, Proceedings of 4th Workshop on European Scientific and Industrial Collaboration 2003 Vol. II., University of Miskolc, Miskolc, 2003, ISBN 963 661 570 5, pp. 567-576.

4.   SMID, L., CSELÉNYI, J., KOVÁCS, L.: Method Used for Investigation of Influence of Number of the Buffer Tracks at the Portal Robot Aided Formation of Homogeneous Loading Units, Proceedings of 11th International Workshop on Robotics in Alpe-Adria-Danube Region 2002, Budapet Polytechnic, Budapet, 2002, ISBN 963 7154 10 8, pp. 437-442.

5.   SMID, L., CSELÉNYI, J.: Algorithm of Computer Control of the Portal Robot Aided Inhomogeneous Loading Unit Building in: Modelling and Optimisation of Logistic Systems edited by Cselényi J., Bányai T., University of Miskolc, Miskolc, 2001, ISBN 963 661 510 1, pp. 126-137.

 k) Any other scientific/research achievement, patents, etc:

 l)   Other qualified skill/experiences/honors:
      Membership in national boards:
      Membership in local boards:

Name: György Wagner	Year of birth: 1961

Education, diploma issued by, in:

MSc in Mechanical Engineering, University of Miskolc, 1985; Logistics Engineering, ME, 2022

Current job, current position:

University of Miskolc, Faculty of Mechanical Engineering and Informatics, Institute of Information Science – master instructor

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*)*, **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

Experience in education

Security and protection in computing; computer networks; Protection of IT systems; It; Basics of programming; Windows system administrator knowledge; Windows network management; Architectures; Health informatics; Vehicle informatics; Text editing, presentation preparation; Security of Computer Systems; Protection of Information Systems; 37 years of experience in education; teaching in English in BSc and Msc courses

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

m) Publications focusing on main research field (max. 5 typical publications):

Wagner György: Software Security
COMEC 2016 IX International Scientific Conference of Mechanical Engineering.
ISBN 978-959-312-216-0, 2016. pp 101-111

Wagner György, Tóth Tibor: Túlterhelés összeomlásig
HETEK, XX. (17) ISSN 1418-0979, 2016. , 24-25 oldal

Illés Béla, Skapinyecz Róbert, Wagner György, Elke Glistau, Norge I Coello Machado:
Application of QFD for the handling of customer needs in automotive industry
COMEC 2016 IX International Scientific Conference of Mechanical Engineering.
ISBN 978-959-312-216-0 , 2016. Paper II/6. 14 p.

Illés Béla, Skapinyecz, Wagner György:
Description of a Method for the Handling of Customer Needs in Logistics
LECTURE NOTES IN MECHANICAL ENGINEERING (1)
ISSN 2195-4356, 2017. pp 341-354

Sárközi György, Illés Béla, Wagner György:
Telematikai alapú logisztikai megoldások az igényvezérelt helyközi közlekedési szolgáltatásokban Magyarországon
XXXI. microCAD International Multidisciplinary Scientific Conference.
ISBN 978-963-358-132-2, 2017. pp. 71-85.

Fűkő László, Illés Béla, Wagner György:
A hagyományos és a rugalmas gyártórendszerek logisztikai aspektusai
Multidiszciplináris Tudományok: A Miskolci Egyetem közleménye 10,
DOI: https://doi.org/10.35925%2Fj.multi.2020.3.45, 2020, pp 377-381

n) Any other scientific/research achievement, patents, etc:
• GTE and NKTH expert membership in the field of Information Communication Technologies and Applications (IKTA).
• IPAR 4.0 NTP ICT working group member
• Cisco Certified CyberOps, T/2021/229264-1

Name: Dr. Tamás Tompa	Year of birth: 1988

Education, diploma issued by, in:

MSc in Electrical Engineering, University of Miskolc, 1985

Current job, current position:

University of Miskolc, Faculty of Mechanical Engineering and Informatics, Institute of Information Science – assistant lecturer

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*)*, **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD, in Computer ÍSciences, 2023 , University of Miskolc

Experience in education

Lecturer of the following university subjects: software testing, modern information technologies, software technology, basics of programming, Java programming, web technologies

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

a) 1.   Tompa, Tamás, and Szilveszter Kovács. "Applying expert heuristic as an a priori knowledge for FRIQ-learning." Acta Polytechnica Hungarica 17.4 (2020): 27-45.

b) 2.   Tompa, T., Kovács, S., Vincze, D., & Niitsuma, M. (2021, January). Demonstration of expert knowledge injection in Fuzzy Rule Interpolation based Q-learning. In 2021 IEEE/SICE International Symposium on System Integration (SII) (pp. 843-844). IEEE.

c) 3.   Tompa, Tamás, and Szilveszter Kovács. "Determining the minimally allowed rule-distance for the incremental rule-base contruction phase of the FRIQ-learning." 2018 19th International Carpathian Control Conference (ICCC). IEEE, 2018.

d) 4.   Tompa, Tamás, and Szilveszter Kovács. "Clustering-based fuzzy knowledgebase reduction in the FRIQ-learning." 2017 IEEE 15th International Symposium on Applied Machine Intelligence and Informatics (SAMI). IEEE, 2017.

5. Tamás, Tompa, and Kovács Szilveszter. "Szabálytávolság alapú szabálybázis redukció a szakértői tudásbázissal bővített FRIQ-learning környezetben." Multidiszciplináris Tudományok 12.1 (2022): 90-102.

Name: Dr. Judit Tamás Kunné	Year of birth: 1994

Education, diploma issued by, in:

Computer Science Engineer, University of Miskolc, 2017

Current job, current position:

University of Miskolc, Institute of Information Science, senior lecturer

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*),* **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD 2021 in Compiuter Sciences: . „Classification based Symbolic Indoor Positioning"

Experience in education

5 years, Hungarian courses: Database systems, Intelligent methods, Basics of framework-based programming, Foundation of Mobile programming, Web technologies, Basics of Programming, Software Testing, Information Technology for Engineers, Software Engineering Methods. English courses,: Mobile and IoT Application Development, Database Systems I, Webprogramming, Database Systems II

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

e) Publications focusing on main research field (max. 5 typical publications):

Tamas, Judit, and Zsolt Toth. "Topology-Based Evaluation for Symbolic Indoor Positioning Algorithms." IEEE Transactions on Industry Applications 55.6 (2019): 6324-6331.
Tóth, Zsolt, and Judit Tamás. "Miskolc IIS hybrid IPS: Dataset for hybrid indoor positioning." 2016 26th International Conference Radioelektronika (RADIOELEKTRONIKA). IEEE, 2016.
Tamas, Judit and Zsolt Toth. „Classification-based symbolic indoor positioning over the Miskolc IIS Data-set" Journal of Location Based Services (2018)

f) Any other scientific/research achievement, patents, etc:

g) Other qualified skill/experiences/honors:

   Membership in national boards:

   Membership in local boards:

Name: Dr. Judit Molnár Somogyiné	Year of birth: 1986

Education, diploma issued by, in:

Electrical engineer, University of Miskolc, 2017

Environmental geophysical engineer, University of Miskolc, 2009

Current job, current position:

Department of Electrical and Electronic Engineering, Institute of Physics and Electronic Engineering, University of Miskolc - Associate professor

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*),* **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD (natural sciences), University of Miskolc, 2013

Experience in education

taught courses: Electromagnetic Theory I. (BSc), Electromagnetic Theory II. (BSc), Electromagnetic Theory III. (BSc), Electrical engineering (BSc), Electrical engineering-electronics (BSc), Basics of Geoinformatics (BSc), Geoinformatics (BSc), Engineering geophysics (MSc), Chapters from continuum physics (PhD)
time spent in education: 13 years
education in foreign language (English): Electrical Engineering (ERASMUS course)

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

h) Publications focusing on main research field (max. 5 typical publications):

1. Fancsik Tamás, Turai Endre, Szabó Norbert Péter, Somogyiné Molnár Judit, Dobróka Tünde Edit, Dobróka, Mihály: Evaluation of induced polarization measurements using a new inversion method. ACTA GEODAETICA ET GEOPHYSICA 56:(4) pp. 623-643 (2021)

2. Bodnár István, Somogyiné Molnár Judit, Szabó Norbert, Erdősy Dániel, Boros Rafael Ruben: BLDC motorok elektromágneses sugárzásának mérésére alkalmas labor kialakítása. MULTIDISZCIPLINÁRIS TUDOMÁNYOK 10:(1) pp. 26-35 (2020)

3. Bodnár István, Tóth, Lajos, Somogyiné Molnár Judit, Szabó Norbert, Erdősy Dániel, Boros Rafael Ruben: Examination the effect of environmental factors on a photovoltaic solar panel. In: Szita Tóthné, Klára; Jármai, Károly; Voith, Katalin (szerk.) Solutions for Sustainable Development: Proceedings of the 1st International Conference on Engineering Solutions for Sustainable Development, pp. 108-114 (2019)
4. Somogyiné Molnár Judit: Komplex mérő-adatgyűjtő-feldolgozó szoftver fejlesztése LabVIEW-ban az akusztikus hiszterézis vizsgálatára. VILLAMOSMÉRNÖKI TUDOMÁNYOK 1:(1) pp. 173-180 (2018)

5. Somogyiné, Molnár Judit: Development of new complex software for investigating acoustic velocities under pressure. GEOSCIENCES AND ENGINEERING 5:(8) pp. 135-146 (2016)

i) Any other scientific/research achievement, patents, etc:

Scholarships: Pál Erdős Young Researcher Scholarship- National Excellence Program (2014), Campus Hungary short field trip scholarship (2013), Predoctoral scholarship - TÁMOP-4.2.2/B-10/1-2010-0008 (2012)

Honours and awards: Award of Program Zenó Terplán of year 2016/17 (2017), MAB István Szentpáli Scientific Award (2013), Memorial award of the Association of Hungarian Geophysicists (2013), Meeting of Young Scientists, theoretical category - 1st award (2011),

Courses: Site Management and Website Development course, Miskolc (22-30/05/2014), Modern methods of the interpretation of well logging data, short course, Miskolc (26-27/08/2013), MALA Training Course of GPR, Miskolc (07-09/12/2010)

Projects supported by the EU: EFOP-3.6.1-16-2016-00011 (2019), GINOP-2.2.1-15-2017-00090 (2018-2019), TÁMOP-4.2.2.D-15/1/KONV-2015-0030 (2015), OTKA K109441 (2013-2015), TÁMOP-4.2.2.A-11/KONV-2012-0049 (2013-2015), TÁMOP-4.2.2.A-11/1/KONV-2012-0005 (2013-2014), TÁMOP-4.2.1.B-10/2/KONV-2010-0001 (2011-2012)

Memberships: MTA MAB Mechanical and Informatics Committee, Electrical Engineering and Information Technology Working Committee (2017-), Hungarian Academy of Sciences, X. Section of Earth Sciences - Public Board member (2013-), European Association of Geoscientists and Engineers - Member (2010-), Association of Hungarian Geophysicists - Member (2010-)

Name: Dr. Károly Nehéz	Year of birth: 1974

Education, diploma issued by, in:

MSc in Mechanical Engineering, University of Miskolc, 1997

Current job, current position:

University of Miskolc, Institute of Information Science, associate professor

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*)*, **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD in Computer Sciences, University of Miskolc, 2003

Experience in education

subjects: Technical communication, Construction of information systems, Computer technology, Integration of information systems

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

j) Publications focusing on main research field (max. 5 typical publications):

Király, S., Nehéz, K., & Hornyák, O. (2017). Some aspects of grading Java code submissions in MOOCs. Research in Learning Technology, 25.

Szabó, N. P., Nehéz, K., Hornyak, O., Piller, I., Deák, C., Hanzelik, P. P., ... & Ott, K. (2019). Cluster analysis of core measurements using heterogeneous data sources: An application to complex Miocene reservoirs. Journal of Petroleum Science and Engineering, 178, 575-585.

Agárdi, A., Nehéz, K., Hornyák, O., & Kóczy, L. T. (2021). A Hybrid Discrete Bacterial Memetic Algorithm with Simulated Annealing for Optimization of the Flow Shop Scheduling Problem. Symmetry, 13(7), 1131.

Váradi, C., Nehéz, K., Hornyák, O., Viskolcz, B., & Bones, J. (2019). Serum N-glycosylation in Parkinson's disease: a novel approach for potential alterations. Molecules, 24(12), 2220.

Any other scientific/research achievement, patents, etc:

Name: Dr. Anita Agárdi	Year of birth: 1994

Education, diploma issued by, in:

MSc in Computer Science Engineering, ME, 2019

Current job, current position:

ME, GÉIK, Institute of Informatics, assistant lecturer

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*),* **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD in Computer Sciences, University of Miskolc, 2023

Experience in education

Subjects in Hungarian:
Web technológiák 1, Web technológiák 2, Mobil programozási alapok, Web technológiák 1 gyakorlat, Mobil programozás, Mobil programozás haladó, WEB technológiák, Web programozás, Adatkezelés XML-ben, Adatbázis kezelés XML-es környezetben
English subjects:
Mobile Application Development

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

k)   Publications focusing on main research field (max. 5 typical publications):

.) Anita Agárdi ; László Kovács ; Tamás Bányai
An Attraction Map Framework of a Complex Multi-Echelon Vehicle Routing Problem with Random Walk Analysis
APPLIED SCIENCES-BASEL 11 : 5 Paper: 2100 , 23 p. (2021)
2.) Anita Agárdi ; László Kovács ; Tamás Bányai
Comparision of the walk techniques for fitness state space analysis in vehicle routing problem
ACTA POLYTECHNICA 61 : 6 pp. 672-683. , 12 p. (2021)
3.) László Kovács; Anita Agárdi ; Tamás Bányai
Fitness Landscape Analysis and Edge Weighting-Based Optimization of Vehicle Routing Problems
PROCESSES 8 : 11 Paper: 1363 (2020)
4.) Anita Agárdi ; László Kovács ; Tamás Bányai
Two-Echelon Vehicle Routing Problem with Recharge Stations
TRANSPORT AND TELECOMMUNICATION 20 : 4 pp. 305-317. , 13 p. (2019)
5.) Anita Agárdi
Fitness Landscape Analysis of Population-Based Heuristics in Solving a Complex Vehicle Routing Problem
LECTURE NOTES IN MECHANICAL ENGINEERING Vehicle and Automotive Engineering 4 pp. 667-677. , 11 p. (2022)

l)   Any other scientific/research achievement, patents, etc:

Secretary of Production Sytems and Information Engineering journal
Terplán Zénó College for Advanced Studies: head of Informatics Section

Name: Dr. Zoltán Krizsán	Year of birth: 1976

Education, diploma issued by, in:

M.Sc. In Information Engineering University of Miskolc, Miskolci Egyetem, 2000

Current job, current position:

ME, GEIK – Department of Information Technology – associate professor

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*),* **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD (information science) 2016– University of Miskolc

Experience in education

Object oriented programming, Advanced Java, Development of Web applications, Development of Distibuted Systems, Software Technologies, Design Patterns
Courses in english : Development of Web applications, Software Technologies

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

m) Publications focusing on main research field (max. 5 typical publications):

- Zoltán, Krizsán ; Szilveszter, Kovács> Double Fuzzy Point Extension of the Two-step Fuzzy Rule Interpolation Methods, ACTA POLYTECHNICA HUNGARICA 10 : 5 pp. 175-190. , 16 p. (2013)
- Krizsán, Z ; Kovács, S: Fuzzy rule interpolation developer toolbox library, IEEE International Symposium on Applied Computational Intelligence and Informatics, SACI 2012, New York, Amerikai Egyesült Államok : IEEE (2012) pp. 119-123. , 5 p.
- Z, Krizsán ; Sz, Kovács: Double Fuzzy Dot Extension of the FRIPOC Fuzzy Rule Interpolation Method, IEEE International Symposium on Logistics and Industrial Informatics : LINDI 2012
- Szőke, Attila ; Krizsán, Zoltán: Oktatás segítő alkalmazás készítése mikroszerviz alapokon
- MULTIDISZCIPLINÁRIS TUDOMÁNYOK: A MISKOLCI EGYETEM KÖZLEMÉNYE 10 : 2 pp. 430-436. , 7 p. (2020)

n) Any other scientific/research achievement, patents, etc:

o) Other qualified skill/experiences/honors:

Membership in national boards:

Membership in local boards:

Name: László Berényi	Year of birth: 1980

Education, diploma issued by, in:

MSc in Economic Studies, University of Miskolc, , 2003

MSc in environmental engineer, University of Miskolc, 2010

Current job, current position:

ME, GTK, Institute of Management Sciences - associate professor

NKE, ÁNTK, Department of Public Organization and Information Technology – associate professor

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years)**, membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD (management and organizational sciences) 2007,

Habilitation (management and organizational sciences) 2016

Experience in education

Time spent in education: 19 years

Education in Hungarian: System Theory (MA), Public Administration Informatics and Information Systems II., (BA), Environmental Economics (MA), Learning and Research Methodology (BA), Quality Management (BA, MA, PhD), Quality Tools (MA) Production Management (BA) , Ergonomics and work organization (MA), Process and workplace organization (BA), Project quality assurance (FoSz), Empirical analysis methods (PhD)

Education in English: Quality management (MA & Erasmus), Environmental Management (MA), Scientific metrics and publication strategy (PhD), Emprical research methods (PhD)

Education in a foreign institution: Strategic management, course coordinator, Small business management, instructor, Business strategies, instructor (Babes-Bolyai University, Cluj, Romania)

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

p) Publications focusing on main research field (max. 5 typical publications):

   Deutsch, Nikolett; Berényi, László. Personal approach to sustainability of future decision makers: a Hungarian case. ENVIRONMENT DEVELOPMENT AND SUSTAINABILITY 20 : 1 pp. 271-303. , 33 p. (2018)
   Berényi, László. Fundamentals of Quality Management. Saarbrücken, Németország : Lambert Academic Publishing (LAP) (2013) , 176 p. ISBN: 9783659490590
   Berényi, László; Deutsch, Nikolett. Corporate Social Responsibility and Business Philosophies among Hungarian Business Students. SUSTAINABILITY 13 : 17 pp. 1-21. Paper: 9914 , 21 p. (2021)
   Berényi, László. Termelésmenedzsment , 79 p. (2021). Kiadó: Miskolci Egyetem
   Berényi, László. Fundamentals of Quality Management. Saarbrücken, Németország : Lambert Academic Publishing (LAP) (2013) , 176 p. ISBN: 9783659490590

q) Any other scientific/research achievement, patents, etc:

   15 years of experience in organizing indoor and outdoor tours
   Management of research projects as project manager (OTKA T048849) and research manager (OTKA PD71685)

   Recognitions:
   Hungarian Quality Society – Author of the Year Award (2014)

Name: Dr. István Kunos	Year of birth: 1967

Education, diploma issued by, in:

MSc in . Mechanical engineering, University of Miskolc, , 1991;
 MSc Economist, KF, 2004

Current job, current position:

University of Miskolc, Faculty of Economics, associate professor

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*),* **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD in Organisation and Management Sciences, University of Miskolc, 2004
Habilitation, University of Miskolc, 2017

Experience in education

taught subjects: Coaching, Personality Development, Management Psychology, Management Development, Conflict Management, Problem Solving, Management Organization, Human Resource Management
23 years in education, teaching in English, as a guest lecturer in foreign institutions

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

r)   Publications focusing on main research field (max. 5 typical publications):

Személyiségfejlesztés, Miskolci Egyetem Kiadó, Miskolc, 2009.
ISBN 978-963-661-862-9
2. Personality Development, Miskolci Egyetem Kiadó, Miskolc, 2011. ISBN 978-963-661-952-7
3. Coaching a magyar HRM-ben, in: Átalakuló emberi erőforrás menedzsment szerk.: Poór-Karoliny-Berde-Takács, Budapest, Complex Kiadó, 2012. pp. 266-277. ISBN 978-963-295-083-9
4. Coaching (et al), in: Menedzsment tanácsadási kézikönyv, szerk.: Poór J., Budapest, Akadémiai Kiadó, 2016. pp. 511-532.
ISBN 978-963-05-9812-5 ISSN 2061-6430
5. Coaching a társadalom és a gazdaság szolgálatában, Észak-magyarországi Stratégiai Füzetek, Gazdaság-Régió-Társadalom, 2018. XV. évfolyam 1. szám, pp 92-97, Miskolci Egyetem, Gazdaságtudományi Kar, ISSN 1786-1594 (Nyomtatott), ISSN 2560-2926 (Online)

 s) Any other scientific/research achievement, patents, etc:

t)   Other qualified skill/experiences/honors:

Membership in national boards:

Membership in local boards:

Name: Dr. Gyula Kulcsár	Year of birth: 1978

Education, diploma issued by, in:

MSc in Information science engineering, University of Miskolc, 2001

Current job, current position:

University of Miskolc, associate professor

Scientific degree (PhD, CSc, DLA) (Title of thesis work is to specify if PhD/DLA received within 5 years*),* **membership of the Academy of Sciences/Art** (the title of „dr. habil", DSc; specifying the field of science and date, other titles)

PhD in Information Science, University of Miskolc, 2008

Experience in education

2004-208, professor assistant at the University of Miskolc

2008-2011, lecturer at the University of Miskolc
2011-, associate professor at the University of Miskolc

Connection between the teacher's professional/scientific/research activities and the coordinated courses/subjects

u) Publications focusing on main research field (max. 5 typical publications):

1. Mihály, Krisztián; Kulcsárné-Forrai, Mónika; Kulcsár, Gyula: Advanced Methods to Solve Multi-project Scheduling Problems Taking into Account Multiple Objective Functions, LECTURE NOTES IN MECHANICAL ENGINEERING, pp. 747-755, 2022.
2. Kulcsár, Gyula; Kulcsárné Forrai, Mónika: An advanced model for solving industrial scheduling problems, PRODUCTION SYSTEMS AND INFORMATION ENGINEERING, 10: 1, pp. 77-89. , 2022.
3. Tóth, Norbert; Kulcsár, Gyula: New models and algorithms to solve integrated problems of production planning and control taking into account worker skills in flexible manufacturing systems, INTERNATIONAL JOURNAL OF INDUSTRIAL ENGINEERING COMPUTATIONS, 12: 4, pp. 381-400. 2021.
4. Kulcsárné Forrai, Mónika; Kulcsár, Gyula: Modeling and Solving an Extended Parallel Resource Scheduling Problem in the Automotive Industry, ACTA POLYTECHNICA HUNGARICA, 14: 4, pp. 27-46, 2017.
5. Kulcsár, Gyula; Erdélyi, Ferenc: A New Approach to Solve Multi-Objective Scheduling and Rescheduling Tasks, INTERNATIONAL JOURNAL OF COMPUTATIONAL INTELLIGENCE RESEARCH, 3: 4, pp. 343-351, 2007.

v) Any other scientific/research achievement, patents, etc:

Scheduling of discrete production processes. development of models and algorithms. Development of software to solve industrial practical scheduling problems (R&D projects). Some results and industrial projects:

1. POTOM Production Scheduler Software (Sanatmetal project, 2018-2020)
2. MO2PS Production Scheduler and Inverntory Control Software (Fehrer projects, 2014-2016)
3. EFFS 2 Scheduling software to solve fine scheduling problems in refrigerator manufacturing (Electrolux-Lehel projects: 209-2010)

EFFS production scheduler and rescheduler software (Vital project 2006, Digital Enterprise project 2007).