PROFILE

Basic Facts
- Founded in 1988, origins from 1960s
- 5 full professors, 72 staff members
  (incl. 30 NTIS researchers), 27 full-time
  Ph.D students, 580 bachelor and
  master students, 27 international
- Total budget: EUR 1.2 million
  (government: EUR 1 million, grants:
  EUR 0.2 million)

Membership and Partners
- International Organizations: Informatics
  Europe, IEEE Computer Society,
  ACM SIGGRAPH, ISO/IEC JTC1 SC 32
  Standards for Data management and
  Interchange, IFIP TC2 & TC 5
- International Speech Communication
  Association (ISCA), International
  Neuroinformatics Coordinating Facility
  (INCF), ARTEMIS
- Industrial partners: AŽD Praha,
  s. r. o., CCA Group, a. s., Czech
  News Agency (ČTK) Praha, Medicalc,
  s. r. o., University Hospital Plzeň, Openmatics,
  s. r. o., Own software USA, Seznam.cz,
  ŠKODA AUTO, a.s.

Education
- Bachelor study branches: Computer
  Science, Computer Engineering,
  Information Systems
- Master study branches: Computer
  Engineering and Networks, Computer
  Graphics, Information Systems, Medi-
  cal Informatics, Software Engineering
- Erasmus links: MDH Sweden, UPSAM
  Spain, INSA France, QUB United King-
  dom, OTH Germany, HAMK Finland,
  ULPGC Spain, etc.

Research Areas
- Medical Informatics (J. Kohout): Medi-
  cal Information Systems (J. Křížek);
  Neuroinformatics (R. Mousék)
- Computer Engineering and Networks
  (V. Vavřička): Distributed Systems
  (J. Šafařík); Embedded Systems,
  Specialized Hardware and Computer
  Networks (V. Vavřička)
- Computer Graphics, Data Visualisation
  (I. Kolingerová): Geometric Algorithms
  and Models (I. Kolingerová); Algo-
  rithms and Human-Computer Visual
  Interaction (V. Škala)
- Natural Language Processing, Data
  Mining (P. Král): Text Mining (K. Čejek);
  Natural Language Processing (P. Král)
- Software Engineering and Reliability
  (P. Brada): Reliable Software Architec-
  tures (P. Brada)

SELECTED RESULTS

Journal publications
- BOBK, J. Supervisory logic control of
discrete event systems. In Elektroonové.
- BRADA, P.; JEŽEK, K. Repository
  and meta-data design for efficient
  component consistency verification. In
  Science of Computer Programming.
- BRYCHCIN, T.; KONOPIK, M. Latent
  semantics in language models. In
  Computer Speech and Language.
- JEŽEK, K.; DIETRICH, J.; BRADA, P. How
  Java APIs break – An empirical study. In
  Information and Software Technology.
- JEŽEK, P.; MOUČEK, R. Semantic frame-
  work for mapping object-oriented
  model to semantic web languages. In
  Frontiers in Neuroinformatics.
- LENIČ, L.; KRÁL, P. Automatic face
  recognition system based on the SIFT
  for detection of the face regions. In
  Computers & Electrical Engineering.
- LÓB, P.; VANEČEK, P. Safe range of
  free space light propagation calculation
  in single precision. In Optics Express.

Conference publications
- DUDÁČEK, K.; DUDÁČEK, K.; VAVRÁČKA, V.
  Comparison of Short Delay Measure-
  ment Methods. In 2015 International
  Conference on Applied Electronics.
- KONOPIK, M.; KONOPIK, M. Segment
  Representations in Named Entity Recog-
  nition. In Text, Speech, and Dialogue.
- KRÁL, P.; LENIČ, L.; CERBÍSA, C.
  Semantic Features for Dialogue Act
  Recognition. In Third International
  Conference on Statistical Language and
  Speech Processing (SLSP 2015).
- KRAMER, S.; MOTTOK, J.; RACEK, S.
  Proporionate Fair based Multicore
  Scheduling for FT Multi-core RT
  International Conference on Electrical
  and Information Technologies.
- PAPEZ, V.; MOUČEK, R. Architectural
  Development in Electrohydraulics
  Domain – Electro-technophysics as a
  Personal EHR System Module. In
  HEALTHINF 2015 – 8th International
  Conference on Health Informatics.
- POTUZÁK, T. Distributed/Parallel
  Genetic Algorithm for Road Traffic
  Network Division using Step Paralleli-
  zation. In 2015 4th Eastern European
  Regional Conference on the Engineering
  of Computer Based Systems.
- VARNUSKOVÁ, J.; KOHOUT, J. Science
  and Education

Applied Research Results
- Stimulation device for neuroinformatic
  and reactometrical experiments (P. Mütt-
  ner, R. Mousék, J. Novotný, K. Dudařek),
  Czech patent No. CZ 304979

Research Projects
- NECPA-Development of Algorithms
  for Computer Graphics and CAD/CAM
  systems, MSMT, LH12181, 2012–2015,
  EUR 36.500, V. Skala
- MediaGIS – Summarisation and
  Sentiment Analysis for Evolv-
  ing Multimedia Content, 7 BP – EU-
  ROPEAN COMMISSION, FP7-
  CGI-630786, 2014–2018,
  EUR 100.000, J. Steinberger

Industrial Projects
- Software development process
  analysis and improvement design in
  CCA Group, a. s., Client: CCA Group,
  a. s., 2015, P. Brada
- Research and development work in
  field of text processing, full-text
  searching and analysis of text data,
  Client: CCI Technologies LLC, 2015,
  M. Konopík
- Home and small enterprises energy
  monitoring system, Client: EnEng,
  s. r. o., 2015, K. Dudařek
- Software solution for automatic
  processing of scanned images, Client:
  EXON, s. r. o., 2015, P. Král
- Verification, analysis and design of
  application system platform processes,
  Client: Öpenmatics, s. r. o., 2013–2015,
  P. Brada
- Research and development of
  prototype for intelligent document
  comparison, Client: Own Software
  Development Company Ltd., 2015,
  M. Konopík

HIGHLIGHTS

Events
- Programming contest PilsProg for
  high school students, April 11, 2015,
  Pilsen
- 23th International Conference on
  Computer Graphics, Visualization and
  Computer Vision (WSCG 2015),
  June 8–11, 2015, Pilsen
- 18th International Conference Text,
  Speech and Dialogue (TSD 2015),
  Sept. 14–17, 2015, Pilsen

Awards
- Joseph Fourier prize – 2nd place for
  research in the field of Distributional
  semantics in language modelling
  (T. Brychcin)