

Zpravodaj pro kybernetiku a informatiku

ČSKI Česká společnost pro kybernetiku a informatiku
Člen: CEPIS, ECCAI, ESSU, IAPR, IASS/AIS, IFAC, IFIP. Založena 1966.

květen
2003

Sekretariát: Pod vodárenskou věží 2, 182 07 Praha 8 – Libeň tel: 2 6605 3901 fax: 2 8658 5789 e-mail: cski@utia.cas.cz
http://www.cski.cz

Vážení kolegové,

protože se objevily úvahy o smysluplnosti rozesílání papírových Zpravodajů klasickou poštou, nabízíme těm z vás, kdo považují putování obálky se Zpravodajem do své schránky za zbytečné, aby se ozvali a informovali nás, v jaké formě by v budoucnu rádi Zpravodaj dostávali.

Možnosti, které nás napadají (a které mohou být z vaší iniciativy rozšířeny):

- nepotřebuji žádný servis ze strany sekretariátu, Zpravodaj si budu sám stahovat z webové stránky ČSKI
- na e-mailovou adresu, kterou uvádím, bych rád dostával postscriptový soubor se Zpravodajem
- na e-mailovou adresu, kterou uvádím, bych rád dostával .pdf soubor se Zpravodajem

Členové ČSKI, kteří nás nevyzvou ke změně, budou nadále dostávat Zpravodaj ČSKI poštou.

Dagmar Harmancová

Květnové kalendárium

5. S. Rawles: Data preprocessing for multi-relational data mining
6. R. Černý: Podmíněná intenzita bodového procesu a Gibbsové modely
7. R. Horčík, P. Cintula: Rozšíření Lukasiewiczovy logiky součinnou t-normou
7. A. Capotorti: Reliability of medical diagnoses based on partial information
12. T. Urbancic: Lessons learned in linking academia and business through education
17. J. Vejnarová: Mnohorozměrné posibilistické modely
21. J. Burridge: Motor learning and the man-machine interface
28. M. Daniel: Algebraické struktury kombinování domněnkových funkcí. Dempsterova disjunktivní pologrupa.

Odborná skupina aplikované matematické logiky

Vás zve na semináře, které se konají vždy ve středu v 9:00 hod. v zasedacím sále Ústavu informatiky AV ČR (místnost č. 318), Pod vodárenskou věží 2, 182 07 Praha 8 – Libeň, stanice tramvají 10, 17 a 24 Ládví.

Program:

- 7. května R. Horčík, P. Cintula: Rozšíření Lukasiewiczovy logiky součinnou t-normou
- 28. května M. Daniel: Algebraické struktury kombinování domněnkových funkcí. Dempsterova disjunktivní pologrupa.

Odborná skupina „Rozhodování a řízení za neurčitosti“

Vás srdečně zve na přednášku:

Jane Burridge

(University of Southampton Highfield, Mailpoint 886, Level E, Centre Block, Southampton General Hospital, SOUTHAMPTON SO16 6YD, United Kingdom.
e-mail: jhb1@soton.ac.uk; J.H.Burridge@soton.ac.uk)

Motor learning and the man-machine interface

Přednáška se koná 21. 5. 2003 (středa) od 15:30 hod., ÚTIA AV ČR, Pod vodárenskou věží 4, 182 08 Praha 8 – Libeň, místnost č. 474.

Souhrn.

The talk deals with motor learning and the application of this to the support module of the Haimon project.

The goal of the project is to develop a system for motor learning following a central nervous system lesion by augmenting impaired voluntary control with neural stimulation and guidance from a robotic exoskeleton both under bi-directional control through intact signals such as the EMG (electromyographic) signals from the oculomotor muscles.

Odborná skupina teoretické robotiky

Vás zve na přednášku:

Jiřina Vejnarová (LISp)

Mnohorozměrné posibilistické modely

ve čtvrtek 12. května od 9:00 hod. Přednáška se koná v zasedacím sále Ústavu informatiky AV ČR (místnost č. 318), Pod vodárenskou věží 2, 182 07 Praha 8 – Libeň, stanice tramvají 10, 17 a 24 Ládví.

Souhrn. Metody reprezentace, výpočetní procedury, interpretace, problémy.

Laboratoř inteligentních systémů Praha a Odborná skupina pro inteligentní systémy

zvou všechny zájemce na pracovní semináře, které se konají vždy ve středu v 15:00 hod. v Klubu knihovny VŠE, nám. W. Churchilla 4, Praha 3, Žižkov, stará budova - zvýšené přízemí.

Program:

- 7. května 2003 Andrea Capotorti (Università degli Studi, Perugia, Itálie):

Reliability of medical diagnoses based on partial information

In several medical diagnostic procedures there is the absence for a golden standard to follow, especially when new advances in the understanding of the biology are done or new techniques are discovered. In such situations, different opinions appear in scientific literature and they are based on disparate case studies, each one with its peculiarity and heterogeneity of data. Due to these discrepancies, it is reasonable the physician tries to replicate such evaluations to have a better (scientifically based) idea of which diagnostic procedure to adopt. But there are situations where new sophisticated techniques are required and, either they are so expensive that only few selected trials can be performed, or they are at such initial stage that it is hard to fully trust on them. Moreover, the physician could have the opportunity to make only a retrospective study and usually reliability and accuracy of such data are not very high. Usual (either classical or Bayesian) statistical analysis for diagnostic features crucially depend on or try to propose well specified statistical models to adopt in the different situations, but in the context we are moving in, a preliminary step is required: an explicit quantitative and/or qualitative evaluation of the probabilistic bounds induced by the partial and heterogeneous available information on the main quantities (e.g. sensitivity, specificity, positive predictive value, negative predictive value, etc.) usually adopted to manage the problem at hand. Such bounds will be obtained in a fully model-free framework, using only relevant conditional probabilistic assessments, and they should represent a sound background for any further prior and/or likelihood model selection procedure.

In particular, we will use the more general framework of a mixture of precise, imprecise (lower-upper) and qualitative conditional probabilities assessments.

In the seminar it will be also shown how this methodology has been applied to diagnose gastrointestinal stromal tumors (GISTs).

- 21. května 2003 Jméno přednášejícího a téma budou oznámeny dodatečně

Odborná skupina pro stereologii

pořádá přednášku

Rostislav Černý (MFF UK Praha)

Podmíněná intenzita bodového procesu a Gibbsovy modely

úterý 6. května 2003 od 14:00 hod. Přednáška se koná v posluchárně Praktikum, 1. patro vpravo, budova MFF UK, Sokolovská 83, Praha 8.

Zájemci jsou srdečně zváni.

Gerstnerova laboratoř a Odborná skupina pro umělou inteligenci

zvou všechny zájemce na semináře, které se konají vždy, pokud není uvedeno jinak, **v pondělí od 11:00 hod.** ve Vyčichlově knihovně: ČVUT - Fakulta elektrotechnická, Katedra kybernetiky, budova E, 1. patro, místnost č. 112, Karlovo náměstí 13, Praha 2

Program:

5. květen 2003 Simon Rawles (University of Bristol, UK):

Data preprocessing for multi-relational data mining

Data transformation is a crucial part of the data mining process. However, a large number of preprocessing methods and machine learning algorithms assume the use of a single relation, or table, as the form of the data to be mined. In this seminar we discuss data preprocessing on multi-relational domains, and in particular, a series of techniques that transform them to the single-relation setting. Recent work on the discovery challenge for the ECML/PKDD-2003 conference, concerning a longitudinal study on atherosclerosis risk factors, is used as a case study.

12. květen 2003 Dr. Tanja Urbancic (Nova Gorica Polytechnic, School of Management and Engineering, Slovenia)
(assistant professor and head of school):

Lessons learned in linking academia and business through education

At the Jozef Stefan Institute, the biggest Slovenian research institute, a Center for Knowledge Transfer in Information Technologies was established 8 years ago. Since then, the Center has organized more than 80 specialised seminars and workshops with the aim of promoting latest research and development results among their potential users. Systematic design of educational programmes, careful organization of their implementation, regular feed-back analysis and analysis of world-wide trends provide a basis for a constantly improving educational offer, which is, in some parts, successfully marketed in Europe. Our successes as well as problems encountered will be presented. After the lecture, I will be glad to discuss our experience with the interested audience in more detail, learn about the situation in the Czech Republic and discuss the possibilities of cooperation.

Odborná skupina pro sémiotiku

přeje svému čestnému členu a dlouholetému iniciátorovi mnoha sémiotických setkání Prof. Dr. Ivo Osoloběmu všechno nejlepší k významnému životnímu jubileu. Současně upozorňuje zájemce, že vyšla nová kniha jubilanta (1928) *Ostenze, hra, jazyk*. (Sémiotické studie. Host: Brno)

V nakladatelství Plos, Plzeň právě vychází sborník ze sémiotické konference Společenské hry - analytický přístup. Obsahuje české, slovenské a anglické studie k tématu. Kniha bude k dostání na knižním veletrhu Praha 2003.

Volná místa

Postdoctoral Research Positions at Microsoft Research Cambridge

Applications are invited for postdoctoral research positions at Microsoft Research Cambridge (MSRC) in the fields of computer vision, machine learning and information retrieval. These positions are for just under two years starting from a mutually agreeable date, generally no later than 1 January 2004. Applicants must have completed the requirements for a PhD, including submission of their thesis, prior to joining MSRC.

Postdoctoral researchers receive a competitive salary, together with a benefits package, and will be eligible for relocation expenses.

MSRC is Microsoft's European research laboratory, and is housed in a brand new purpose-designed building on Cambridge University's West Cambridge site, adjacent to the Computer Science and Physics departments, and close to the Mathematics departments and to the centre of town. It currently employs 65 researchers of many different nationalities working in a broad range of areas

including computer vision, machine learning, information retrieval, hardware devices, programming languages, security, systems, networking and distributed computing.

MSRC provides a vibrant research environment with an open publications policy and with close links to Cambridge University and many other academic institutions across Europe. Further information about the lab can be found at: <http://www.research.microsoft.com/aboutmsr/labs/cambridge/>

The closing date for applications is 9 May 2003. To apply please send a full CV (including a list of publications) in PDF, Postscript or Word format, together with the names and contact details for 3 referees, to: cambhr@microsoft.com with the subject line "Application for postdoctoral research position".

Ph.D.: Robot Locomotion, UIUC, USA

Applications are now being accepted for one or more Ph.D. fellowships in the area of bipedal locomotion in the Coordinated Science Laboratory at the University of Illinois at Urbana-Champaign. Applicants should have an M.S. degree or equivalent in Electrical, Mechanical, or Systems Engineering and should have a strong background in robotics and control theory.

For additional information please contact Prof. M.W. Spong at m-spong@uiuc.edu.

Research Assistant at the University of Magdeburg, Germany

A research assistant position at the Dept. of Electrical Engineering and Information Technologies, University of Magdeburg (chair of automation/modelling, Prof. A. Kienle) is available. The position is initially for three years, with the possibility of a two year extension.

Salary, according to the German public sector wage scale, depends on age and marital status. Approximate figures are 32,500 Euros p.a. for the research assistant position (BAT IIa-O).

Requirements: Academic degree comparable to a German Diplom Ingenieur in a technically oriented course of studies (cybernetics, process engineering, electrical or mechanical engineering) with main focus on: modeling and analysis of dynamical systems, simulation and process control.

Research project: Development of new methods for plantwide control of chemical engineering processes. Validation of these methods by application to industrial processes. The research includes the mathematical modeling of the processes under consideration, the analysis of the resulting nonlinear dynamical systems, and problems of designing suitable control structures.

The project is in close cooperation both with the Max-Planck-Institute for Dynamics of Complex Technical Systems in Magdeburg and with industries. The holder of the position is expected to work towards a Ph.D. degree (research assistant).

For further details please contact R. Waschler, phone +49 6110 375, e-mail: washchler_no@spam_mpi-magdeburg.mpg.de. More information can be found on the homepage <http://ifatwww.et.uni-magdeburg.de/auto/>.

In case of equal qualification, handicapped applicants will be treated with higher priority. The Otto-von-Guericke University strives for an increase in female scientific staff, and therefore explicitly encourages female applicants.

Please send your applications – preferably in electronic form (attachments as pdf or ASCII files, no WORD documents!) – to:

Roland Waschler
Max-Planck-Institute for Dynamics of Complex Technical Systems
Sandtorstr. 1, 39106 Magdeburg, GERMANY
e-mail: washchler@mpi-magdeburg.mpg.de

Různé konference

IWPSE 2003 – International Workshop on Principles of Software Evolution, September 1-2, 2003, Helsinki, Finland. Submission deadline: May 18, 2003. <http://www.cs.tut.fi/iwpse/>

CIIT 2003 – 2nd IASTED International Conference on Communications, Internet and Information Technology, November 17-19, 2003, Scottsdale, Arizona. Submission deadline: June 15, 2003. <http://www.iasted.org/conferences/2003/scottsdale/ciit.htm>

Vydává Česká společnost pro kybernetiku a informatiku pro potřeby svých členů. Neprodejné. Neprošlo korekturami ani jazykovou úpravou. Informace o členství v ČSKI na jejím sekretariátě. Příspěvky posílejte na adresu sekretariátu (přednostně emailem a v elektronické formě LaTeX nebo v kódu Kamenických). Uzávěrka příštího čísla: 23. května 2003.

Texty z tohoto zpravodaje smějí být uveřejněny jinde jako celek i po částech. Prosíme ovšem o uvedení odkazu na ČSKI jako zdroj.