Zpravodaj pro kybernetiku a informatiku

ČSKI Česká společnost pro kybernetiku a informatiku

Člen: CEPIS, ECCAI, ESSU, IAPR, IASS/AIS, IFAC, IFIP. Založena 1966.

únor 2010

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http://www.cski.cz

Valná hromada ČSKI

V souladu se stanovami ČSKI svolává předsednictvo *volební valnou hromadu Společnosti* na *pátek dne 12. března 2010 v 16 hod.* Valná hromada se bude konat v zasedacím sále Ústavu informatiky AV ČR, Pod Vodárenskou věží 2, Praha 8, stanice metra C Ládví.

Navrhovaný program valné hromady:
Zahájení
Volba volební komise a předložení návrhu kandidátek
Zpráva o činnosti ČSKI
Zpráva o zapojení ČSKI do projektu ECDL
Zpráva o činnosti vědecké rady ČSKI
Zpráva o hospodaření
Revizní zpráva
Diskuse k předloženým zprávám
Schválení zpráv a udělení absolutoria odstupujícímu předsedovi a orgánům Společnosti
Jmenování nových čestných členů ČSKI
Uzávěrka kandidátek
Volba předsedy a orgánů Společnosti
Cena Antonína Svobody
Plánované aktivity ČSKI
Různé
Závěr

Vyzýváme všechny členy ČSKI k podávání návrhů na členy předsednictva. Návrhy můžete posílat poštou nebo e-mailem, případně podávat telefonicky, kterémukoliv členu předsednictva Společnosti.

předsednictvo ČSKI

Únorové kalendárium

- **2. M. Studený: On geometric approach to structural learning Bayesian nets**
- **3.-5. Computer Vision Winter Workshop 2010**
- **15. V. Chýna: Bergmanova divergence a shluková analýza**
- **16. P. Volf: On probabilistic models for the score in sport matches**
- **17. P. Cintula: Báze přípustných pravidel v implikačně-negačním fragmentu intuicionistické logiky**
- **23. D. Faltýnek: Jazyk - DNA - izomorfie**
- **24. F. Esteva, L. Godo:** *název bude upřesněn později*

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 metra C Ládví.

Program:

17. února Petr Cintula: Báze přípustných pravidel v implikačně-negačním fragmentu intuicionistické logiky

24. února Francesc Esteva, Lluis Godo: *název bude upřesněn později*

Výzkumné centrum Data - Algoritmy - Rozhodování
Odborná skupina „Rozhodování a řízení za neurčitosti"

http://as.utia.cz/dcu/DCU.php

Vás srdečně zvou na pravidelné přednášky v budově ÚTIA AV ČR, Pod Vodárenskou věží 4, 182 08 Praha 8 – Libeň.
Tipy a nabídky přednášek: M. Kárný (26605 2274, school@utia.cas.cz)

Milan Studený
(Dept. of Decision-Making Theory, Institute of Information Theory and Automation of the ASCR, Pod Vodárenskou věží 4, 182 08 Prague 8)

On geometric approach to structural learning Bayesian nets

Přednáška se koná **2. února ve 14 hod.**, místnost č. 474.

Souhrn. At first, the idea of structural learning Bayesian networks by the method of maximization of a quality criterion will be recalled. Then the idea of transforming it to the task to minimize a certain linear function over a special polyhedron will be explained.
The rest of the talk will be an overview of recent results and conjectures concerning the geometry of that polytope.
The talk will be based on joint work with Jiri Vomlel and Raymond Hemmecke.

Petr Volf
(Dep. of Stochastic Informatics)

On probabilistic models for the score in sport matches

Přednáška se koná **16. února ve 14 hod.**, místnost č. 474.

Souhrn. A basic model for final score in a sport game (as for instance football or hockey) assumes that the numbers of goals scored by home and away teams are independent Poisson variables. Parameters can depend on factors characterizing conditions of the match, strength of teams, etc. Evident weak aspects of such a model (independence, absence of time factor) led to improvements proposed by various authors.
I shall review briefly some of them. Then I shall introduce a model in which the goals are a realization of two dependent random point processes. It is assumed that the scoring intensity of each team has several components depending on time and again on factors describing the teams and other conditions of the match. This dependence is modelled with the aid of a semiparametric multiplicative regression model of intensity. A method of model evaluation is presented and demonstrated on small real data from the football World Championship 2006. The model is also used for random generation of artificial results.

Výzkumné centrum Data - Algoritmy - Rozhodování
Odborná skupina pro inteligentní systémy

Vás srdečně zvou na pravidelné pondělní přednášky v budově ÚTIA AV ČR, Pod Vodárenskou věží 4, 182 08 Praha 8 – Libeň.
Tipy a nabídky přednášek: T. Kroupa (26605 2592, kroupa@utia.cas.cz)

V. Chýna (MFF UK)

Bergmanova divergence a shluková analýza

Přednáška se koná **15. února ve 14:00 hod.**, místnost č. 25.

Souhrn. Bergmanova divergence (definice, vlastnosti, příklady) Shluková analýza základní idea, proč iterativní algoritmy ve shlukové analýze. Využití Bergman.divergence ve shlukové analýze (algoritmus hard and soft clustering, možnosti vylepšení, souvislost s exponenciálními rodinami).

Odborná skupina pro sémiotiku

Vás zve na přednášku

Dan Faltýnek (Olomouc)

Jazyk - DNA - izomorfie

Přednáška se koná **23. února ve 16.00 hod.**, v FÚ AV ČR, Praha 1, Jilská 1, 1.p. zasedací místnost.

Všichni zájemci jsou srdečně zváni.

Odborná skupina pro rozpoznávání – CPRS

pořádá spolu s Centrem strojového vnímání (CMP) katedry kybernetiky ČVUT FEL ve dnech 3.-5. února v Nových Hradech

Computer Vision Winter Workshop 2010

Podrobnosti viz http://cmp.felk.cvut.cz/cvww2010/ .

Volná místa

Embry-Riddle Aeronautical University Daytona Beach, Florida

PhD positions are available in the area of DYNAMICS AND CONTROL OF AEROSPACE SYSTEMS under the supervision of Prof. Mahmut Reyhanoglu and Prof. Sergey Drakunov at the Department of Physical Sciences, Embry-Riddle Aeronautical University located in Daytona Beach. These positions cover full tuition and fees plus a $20,000 per year stipend. Requirements include a strong background in control theory, dynamic systems and mathematics; a Master's degree in engineering, physics, or applied mathematics; and excellent skills in using Matlab and Simulink. It is also desirable that the candidates have hands-on experience on feedback control. It is expected that the candidates have excellent GRE and TOEFL (if necessary) scores as well as strong communication and writing skills.

For details and application procedures, please visit
http://www.erau.edu/phd-engineering-physics.

Contacts: Prof. Mahmut Reyhanoglu and Prof. Sergey Drakunov, Physical Sciences Department, Embry-Riddle Aeronautical University, Daytona Beach, Florida.

Department of Physical Sciences Engineering Physics Space Physics Programs Tenure-Track Faculty Positions

Building on the strength of our BS and MS programs and anticipating the start of our new PhD in Engineering Physics degree in Fall 2010, we announce several open faculty positions at the Assistant/Associate/Full Professor level. We are particularly interested in applicants with the following research strengths: SPACECRAFT CONTROL SYSTEMS and SPACECRAFT POWER THERMAL SYSTEMS. Applicants should have PhDs in either engineering or physics and should have a strong desire to teach at the university level. Successful applicants will be expected to develop a funded research program in their specialty. Appointment and compensation will be appropriate to the experience of the successful applicant.

The Physical Sciences Department administers the BS programs in Engineering Physics and Space Physics, the MS in Engineering Physics, and the new PhD program in Engineering Physics. We also provide the foundational science course work for the entire campus.

Applicants should submit: 1. a letter of interest, 2. a full CV, 3. a statement of teaching philosophy and research interests, and 4. contact information for three references. Screening of applicants will begin immediately, and the search will remain open until all positions are filled.

Questions may be addressed to Dr. Mahmut Reyhanoglu at reyhanom@erau.edu

Please apply referencing
IRC31747 for Professor - FT Faculty, IRC31707 Assistant/Associate Professor, IRC31727 Assistant Professor to http://www.erau.edu/jobs (preferred), or via email to Karen.Jacobs@erau.edu.

University of Groningen, the Netherlands

Post Doctoral Research Associate Position:
- Department of Discrete Technology and Production Automation, University of Groningen, the Netherlands
- The Innovation Center for Advanced Sensors and Sensor Systems, Assen, the Netherlands

Project Title: 'Distributed control algorithms for sensor networks'

General Description
In recent years, sensor networks have been utilized in a wide range of applications, such as infrastructure security, environment and habitat monitoring, industrial sensing, traffic control and so on. It has been demonstrated that, when coordinating sensors to cooperatively execute a task, it is usually advantageous to implement control algorithms to improve sensor networks' performances. Since centralized control strategies are generally not feasible due to physical constraints, sensors have to work cooperatively with their neighbors using only local information. Thus the control strategies must be fully distributed. On the other hand, the networks' performance indices are usually determined by global behaviors of the networks, e.g. total coverage, energy consumption, accuracy, etc. So the goal, in essence, is to solve global network optimization problems using local control algorithms. This is in general an intimidating task. However, breakthroughs are expected to be made given the specific sensor network applications in this project which include monitoring and detection in uncertain and time-varying environments.

Research Institute Profiles
The Department of Discrete Technology and Production Automation (DTPA) at the University of Groningen, the Netherlands, provides a leading education and research environment for students and researchers who are interested in the inter-disciplinary study in engineering, computer science, mathematics and applied sciences in general. The research activities at DTPA focus on developing quantitative and analytical theories and methodologies for complex industrial processes and systems, such as autonomous robots, sensor networks, micro-assemblies, energy systems and space systems. The research of the group is funded by both public agencies and industrial partners.

The Innovation Center for Advanced Sensors and Sensor Systems (INCAS3) in Assen, the Netherlands, is a research institute operating in the area of sensors and sensor systems aiming to provide solutions to related social and industrial challenges. Current research projects at INCAS3 include environment monitoring, anti-neutrino detection, sound recognition, human motion and smart sensors. Recently, the province of Drenthe, the Netherland, has granted INCAS3 more than 5.5 million euros to support the city of Assen to form a cluster of education, research and industry in sensor technology.

Candidate Profile
We are looking for a candidate with a doctor degree in the areas of systems and control theory and sensor networks algorithms. The candidate is expected to be involved in fundamental research and in applications at the boundary of several research domains. Strong communication skill is required.

Application
Applicants must submit the following materials:
– Curriculum vitae including a list of publications
– Statement of research interest
– List of two references
These should be emailed to Dr. Ming Cao (ming.cao@ieee.org), who is available for further inquiry.

University of Girona, Spain

The Department of Electrical Engineering, Electronics and Automatic Control of the University of Girona is seeking for outstanding young and responsible researchers for a three-year postdoctoral research fellow position to be started in January of 2011 or earlier. The salary is around 26000 euros/year (in gross) and includes complete coverage of health insurance.

Qualified candidates should have obtained their PhD degree after 1st September of 2006 and preferably have a strong background in e.g., systems and control, electrical engineering, mechanical engineering, civil engineering, mathematics, or similar disciplines. The publication of papers in prestigious journals indexed by JCR (Journal of Citation Report) will be highly appreciated .

The postdoctoral research will focus on the subject of decentralized control of large-scale networked control systems with uncertainties and time-delays, with its application to the semiactive vibration control in automotive and aeronautic systems and civil engineering structures like on-shore and off-shore wind turbine systems. The successful applicant will perform the research work in a multidisciplinary group with possibility of interactions with other international prestigious researchers around the world.

Interested applicants are invited to send by email to Prof. Ningsu Luo (e-mail: ningsu.luo@udg.edu, Tel: +34 972 418888) the following documents:

- Complete CV
- PhD degree certificate
- List of publications in journals and conferences
- A cover letter stating the motivation

Různé konference

ICICCA2010 - The 2010 International Conference on Informatics, Cypernetics, and Computer Applications, July 19-20, 2010, Bangalore, India. Submission deadline: April 1, 2010
http://www.dirf.org/icca2010/index.asp

ICSSE2010 - 2010 International Conference on System Science and Engineering, July 1-3, 2010, Taipei, Taiwan. Submission deadline: March 1, 2010
http://isd.ie.ntnu.edu.tw/ICSSE2010/

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).
Uzávěrka příštího čísla: 22. února 2010.