

Zpravodaj pro kybernetiku a informatiku

ČSKI Česká společnost pro kybernetiku a informatiku

červen
2006

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

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Červnové kalendárium

6. J. Žbirka: **Metody zpracování úplných textů**

13. M. Kárný: **Fully Probabilistic Expression and Incorporation of Prior Knowledge**

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

Vás srdečně zvou na pravidelné úterní přednášky v místnosti č. 474 v budově ÚTIA AV ČR, Pod vodárenskou věží 4, 182 08 Praha 8 – Libeň.

Typy a nabídky přednášek: R. Jiroušek (26605 2046, radim@utia.cas.cz)

PhDr. Jan Žbirka (Tovek Partner)

Metody zpracování úplných textů

Přednáška se koná **6. června 2006 od 14:00 hod.**

Souhrn. Úplné texty mohou být zpracovávány kromě tradičního či ne-booleovského fulltextového vyhledávání též pomocí metod automatizované extrakce informací z textu v přirozeném jazyce. Výsledky mohou být dále analyzovány či zobrazeny pomocí vizualizačních metod.

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

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

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Fully Probabilistic Expression and Incorporation of Prior Knowledge

Přednáška se koná **13. června 2006 od 14:00 hod.**

Souhrn. Exploitation of prior knowledge in parameter estimation is vital whenever data are not informative enough or wild transients in the initial estimation phase are practically unacceptable. Both these cases are frequent in applications.

Elicitation and quantification prior knowledge is a well elaborated art in societal and medical but not in technical applications. Moreover, the use of an 'elicitation expert' is often excluded either due expert's high costs or due to the high complexity of modelled relationships that cannot be grasped by human beings. Thus, an algorithmic support is needed. We exploit to this purpose a recent progress in the methodology of knowledge sharing, achieved in connection with multiple-participant decision making (DM).

Volná místa

Intel in Cambridge, MA

Intern position available with Intel's Information Technology Research group starting this summer.

Job Description: Develop novel machine learning/statistical learning solutions for problems in either enterprise IT manageability or manufacturing equipment performance prediction. We are exploring two problem domains.

Self-diagnosing and self-healing autonomic computing systems

In the first, we are looking to learn probabilistic models that can predict performance of enterprise services based on events reported by enterprise IT components (servers, network infrastructure, applications). Additionally, we wish to learn conditional dependency or causal relationships from event data.

Condition-based and Predictive Maintenance

In the second problem domain, we are interested in applying statistical learning methods to predict semiconductor fabrication tool performance and failure from tool time-series data. Based on historical fabrication tool performance data we wish to characterize when a fabrication tool is highly likely to produce defective product and/or suffer component failure.

The intern will work on one of these projects. Output of the project will minimally be a white paper and ideally be a conference submission summarizing the results of the investigation.

Applicant qualifications: The applicant should be enrolled in a graduate program in computer science, engineering, statistics, applied mathematics or related discipline with minimum of bachelor's degree and preferably a master's degree. The applicant should have expertise in machine learning, statistical learning, advanced statistics, probabilistic reasoning and related areas, demonstrated by coursework and a track record of research. Ideally, the applicant will have published in these areas. Proficiency in a scientific computing environment such as Matlab, R or S is preferable, as well as proficiency in high level programming and scripting languages.

Location: The position is at Intel's offices in Cambridge, MA.

Send resume to Tom Gardos, thomas.r.gardos@intel.com.

PhD Scholarship in Intelligent Agents and Multi-Agent Systems

A new PhD Scholarship is available in Intelligent Agents and Multi-Agent Systems at the Swinburne Centre for Information Technology Research, Faculty of Information and Communication Technologies, Swinburne University of Technology, Melbourne, Australia.

Potential candidates interested in PhD research in the areas of qualitative decision-making, argumentation and learning mechanisms for multi-agent negotiation and coordination are encouraged to apply. Preference will be given to the candidates with strong mathematical, game-theoretical, soft computing, artificial intelligence and/or relevant computer science background and interests. Both Australian and international candidates are encouraged to apply. Preferred commencement in 2006.

For further information and application forms, please contact Prof Ryszard Kowalczyk with the following details:

- A detailed curriculum vitae
- An (electronic) copy of undergraduate and postgraduate transcripts
- Topic(s) of interest preferably with a very short synopsis (max half a page)
- Evidence of formal research experience if applicable (e.g. degree by research, research projects, publications)
- Evidence of English proficiency (native English speaker, previous studies in English in certain cases, or IELTS of 6.5 with no band below 6)

Contact details: Prof Ryszard Kowalczyk, Director, Swinburne Centre for Information Technology Research, Program Leader, Intelligent Agents and Multi-Agent Systems, Ph: +61 3 9214 5834, Email: rkowalczyk@swin.edu.au

Further information:

<http://www.swin.edu.au/ict/research/citr>

<http://www.it.swin.edu.au/centres/ciamas>

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. září.

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