

# Zpravodaj pro kybernetiku a informatiku

**ČSKI** Česká společnost pro kybernetiku a informatiku

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## Říjnové kalendárium

14. Kde jsme byli + diskuse o semináři

21. Adam Přenosil: The lattice of super-Belnap logics

### Odborná skupina aplikované matematické logiky

Vás zve na semináře, které se konají vždy **ve středu** v zasedacím sále Ústavu informatiky AV ČR (místnost č. 318), Pod Vodárenskou věží 2, 182 07 Praha 8 – Libeň, stanice metra C Ládví.

**Pozor! Začátek seminářů je posunut na 10 hodin!**

**Program:**

14. října Kde jsme byli + diskuse o semináři

21. října Adam Přenosil: The lattice of super-Belnap logics

We investigate the lattice of extensions of the four-valued Belnap-Dunn logic, called super-Belnap logics by analogy to super-intuitionistic logics. Although the Belnap-Dunn logic itself has been studied extensively, very little is known about the landscape of super-Belnap logics. In an attempt to fill this gap, we prove some new completeness theorems, identify some splittings of this lattice, and show that it is non-modular and has the cardinality of the continuum. Moreover, we describe the protoalgebraic and self-extensional super-Belnap logics. Surprisingly, it turns out that there is a close connection between super-Belnap logics and finite graphs: for example, the lattice of classes of finite graphs closed under homomorphisms dually embeds into the lattice of finitary (explosive) extensions of the Belnap-Dunn logic.

### Volná místa

#### Nanyang Technological University, Singapore

A Research Fellow and a Ph.D research student positions are available in the School of Electrical & Electronic Engineering, Nanyang Technological University, working on the project on Autonomous Docking of Food Catering Truck to Aircraft.

The goal of this project is to develop a food catering truck-docking assistant system to help a human operator to dock the truck precisely. In addition, the system should prevent errors that damage the aircraft and cause flight delays during the docking process. Sensors will be used to determine the position of the aircraft and the truck. Appropriate docking algorithms will be developed to guide the docking of the truck based on optimal path planning and real-time feedback of the sensors' measurement data.

The salary range for the research fellow is S\$4000 - S\$5000 per month, with additional performance bonus payable at the end of academic year. The position can start immediately for a term of 2 years.

The requirements are:

- A Ph.D degree in relevant areas of the project;
- Demonstrated technical knowledge and capabilities (in the form of publication records) pertaining to intelligent vision systems and/or autonomous vehicles;
- Experiences in algorithm development and implementation for intelligent vision systems and/or autonomous vehicles working under various operational conditions.

The position for the Ph.D student needs to meet NTU's general admission criteria stated in <http://admissions.ntu.edu.sg/graduate/R-Programs/BeforeApplying-Research/Pages/GeneralAdmissionRequirements.aspx>.

The successful applicant should be admitted in Jan 2016.

Interested candidates please email CV/resume to Prof Changyun Wen through email address: [ecywen@ntu.edu.sg](mailto:ecywen@ntu.edu.sg)

There is a Post Doc position available in the corporate lab Wireless Networking for interested graduating students.

The Post Doc will assist the Principal Investigator on the Project:

- To develop models for design of networking algorithms to enhance fault tolerant capabilities of the sensor networks deployed on electrical machine platform.

- To develop methodology for reliability of the sensor networks applied to electrical machine platform, with an optimal allocation of number of sensors, and networking algorithm that improves the fault tolerant capabilities of electrical drives and mechanical drives at minimum cost.

- To implement the algorithms in simulation and verify the performance in hardware test.

Interested candidates should send to Prof Soong Boon Hee by email:

[ebhsoong@ntu.edu.sg](mailto:ebhsoong@ntu.edu.sg)

- Detail CV, List of publications and References

- List job reference number RRWSN15-93

Only shortlisted candidates will be notified for interview. Electronic submission of application is highly encouraged.

The applicant must have:

- A PhD degree in the area of Electrical & Electronic Engineering or Computer Engineering;

- Experience on Sensor network deployment, Communication Protocols, Networking algorithms for modelling of Electrical and Mechanical components for electrical machine platform;

- Good knowledge about Energy efficient protocols for wireless sensors networks, Energy harvesting capabilities design;

- Good Team Dynamics and Project Management Skills;

- Excellent Communication Skills (both oral and written) in English.

A postdoc position is immediately available in School of Electrical and Electronic Engineering at Nanyang Technological University

A candidate for a Research Fellow position is sought, who will be placed in a project on Urban Traffic Signal Control based on V2X Information Infrastructure, which is sponsored by Singapore Economic Development Board (EDB) within an NTU-NXP ITS program. The candidate is expected to have a PhD degree in the areas of operations research and/or control with a strong background in mathematical modelling, operation planning, scheduling and control with substantial knowledge on optimization methods and relevant computational tools. Past experience in urban traffic signal control and software simulation of large-scale networks will be a plus. The candidate is expected to undertake research on modelling a large urban traffic network, and developing computationally efficient traffic light scheduling and control algorithms, which are implementable within a V2X infrastructure.

The salary is competitive including a base salary proportional to the candidate's research experience, and an annual performance bonus. The first contract is for one year, and can be renewed up to 2.5 years. An interested candidate can send his/her CV, a list of publications, and a list of at least two references to the following address:

Prof Rong Su

S1-B1b-59, School of Electrical & Electronic Engineering

Nanyang Technological University

50 Nanyang Avenue

Singapore 639798

email: [rsu@ntu.edu.sg](mailto:rsu@ntu.edu.sg)

Electronic submission of application is highly encouraged. Only shortlisted candidates will be notified for interview.

### Různé konference

**CEA'16** - 10th International Conference on Computer Engineering and Applications, Barcelona, Spain, February 13-15, 2016. Paper submission deadline: December 13, 2015.

<http://www.wseas.org/cms.action?id=11047>

Vydává Česká společnost pro kybernetiku a informatiku pro potřeby svých členů. Neprodejně. 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: 25. října 2015.

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