



## **TAMÁS HAIDEGGER, Hungary**

Tamás Haidegger (GSM'08-M'11-GSM'12) has been involved in IEEE affairs since 2003 and RAS activities since 2009, first as a student AdCom member. He launched various projects for the benefit of the members, including the Student Reviewing Program and the Lunch with Leaders. In the past 2 years, he has been serving the community as the chair of the Membership Services Committee. Tamás is deeply involved in the professional activities of RAS: conferences, reviewing, summer school organization and the distinguished lecturer program. Beyond, he initiated various forms of outreach programmes, including competitions and national activities in Hungary. He is running a university startup on hand hygiene control, for which his team received multiple IEEE innovation awards. Tamás is a member of the RAS standardization Workgroup for Ontologies for R&A and also working together with the ISO/IEC TC184/SC 2/JWG9 to create a new standard for medical robot safety and essential performance metrics.

### **IEEE Activities:**

COMMITTEES/BOARDS: RAS Student AdCom member (2010–11), RAS Membership Services Committee chair (2012–), RAS Chapter of the Year Award evaluation panel

REGIONS: R8 member

SECTIONS/CHAPTERS: IEEE Hungary Section (organizer of various conferences and professional events)

STUDENT BRANCHES: Joint IES/RAS Student Chapter member (organizer of various events)

SOCIETY: RAS, EMBS, IES, CS

CONFERENCES: Program co-chair of the IEEE Intl. Conf. on Computational Cybernetics– ICC (program co-chair, 2013, Tihany); Member of the organizing committee: IEEE RAS/EMBS Intl. Conf. on Biomedical Robotics and Biomechanics – BioRob (2012, Rome), MAVI – BME 1st Intl. Workshop on Computer-Integrated Surgery (chair, 2011, Budapest – supported by IEEE Hungary Section); IEEE/RSJ Intl. Conf. on Intelligent Robots and Systems/IROS (2011, San Francisco); IEEE/ASME Intl. Conf. on Advanced Intelligent Mechatronics/AIM11 (2011, Budapest); EU FP7 Future and Emerging Technologies/FET11; Budapest (2011)

OTHER: Reviewer for numerous IEEE conferences and transactions

**Qualifications:** Tamás has the proper background and training fitting the RAS profile: he received his M.Sc. degrees from the Budapest University of Technology and Economics (BME) in Electrical Engineering and Biomedical Engineering in 2006 and 2008, respectively. His Ph.D. thesis (2011) was based on a neurosurgical robot he helped developing when he was a visiting scholar at the John Hopkins University. His main field of research is control/teleoperation of surgical robots, image-guided therapy and supportive medical technologies. He is the coordinator of an international consensus group, focusing on electromagnetic tracking system assessment. Currently, he is an adjunct professor at the Óbuda University, serving as the deputy director of the newly founded ABC Center for Intelligent Robotics. Besides, he is a research area manager at the Austrian Center of Medical Innovation and Technology (ACMIT), working on minimally invasive surgical simulation and training, medical education and the technological improvement of gynecological brachytherapy.

Further, he has built experience in entrepreneurship, as the founder and CEO/CTO of a university spin-off—Hand-in-Scan—focusing on objective hand hygiene control in the medical environment. They are working together with Semmelweis University, the National University Hospital Singapore and the World Health Organization.

Tamás is also an active member of various other professional organizations, including IEEE EMBC, IEEE IES, SPIE, MICCAI and the John von Neumann Computer Society, which makes it easier for him to reach out to new people and look for best practices. His efforts in standard development are supported by the fact that he is a national delegate to an ISO/IEC standardization committee focusing on safety regulations for medical robots.

Tamás has already shown notable publishing activity, he is the author of more than 80 peer reviewed papers at various scientific meeting and conference proceedings, refereed journals and books in the field of biomedical/control engineering and computer-integrated surgery.

He has long been committed to public outreach, maintaining a professional blog on medical robotic technologies for over 7 years: [surgrob.blogspot.com](http://surgrob.blogspot.com).

### **Major Accomplishments:**

- Building up an infrastructure and organization (including people, services and materials) for the RAS student community as RAS Student AdCom.
- Initiated various projects, including the Student Reviewing Program and the Lunch with Leaders.
- Setting ambitious goals as the Membership Services Committee chair, including the initiation of a GOLD representative position.
- Active involvement in the Strategic Planning process of RAS (Feb. 2013).
- Being a core member of the RAS standardization Workgroup for Ontologies for Robotics and Automation and also working together with the ISO/IEC TC184/SC 2/JWG9.
- IEEE Presidents' Challenge: Change the World; Outstanding Student Humanitarian Prize (2011) and IEEE Student Enterprise Award (2011) for inventing and developing an automated hand hygiene control system.

**Position Statement:** I am absolutely committed to work with RAS, and will continue to develop the initiatives that I have already started as a student AdCom member, and currently doing as chair of the Membership Services Committee. My goals are to greatly improve the RAS experience both for members and outsiders. To support these ideas, it would be ideal to become an AdCom member again, thus I could address the current needs of the society directly to the highest governing body.

I plan to become more involved with the Membership Activities Board (MAB) and the Technical Activities Board (TAB), through which I could formalize and establish the following programs and actions:

1. Improving the Society information services to members (including the website, newsletter and the magazine section) in content and format.
2. Reaching out to potential new members coming either from other IEEE domains or from outside. Offering more programs (competitions, self-learning tools, expos) for teenagers to become affected by robotics at an early age.
3. Transforming the peer review process into a sustainable structure, beginning at the Young Reviewer Program.
4. Improving the loyalty of young professionals to the society through establishing a new GOLD program with targeted services, including a personalized Mentoring Program.
5. Supporting student activities aiming to help students developing hard and soft skills (such as presentation, writing and mentoring skills).
6. Establishing strong relations (and maintaining existing ones) to other relevant professional organization (such as EURobotics aibls or IFR).
7. Bringing the startup ecosystem closer to the Society, organizing pitch contests and showcase event along with the major RAS conferences.
8. Developing educational materials to the public, bringing them closer to robotics.
9. Working together with the current AdCom members, supporting them in maintaining a respected, yet friendly and lovable Society.

Predominantly, I am passionate about my profession and the whole field, and this excitement has already translated into active work for the Society. I intend to continue, and find even further means than identified above to improve the RAS experience. I kindly ask you to support my nomination, and provide a chance to serve on the AdCom.