



TAB Report



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OUTLINE

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Actions



- More active TC's
 - periodic TAB reports in RAM as well as on RAS homepage
 - promotion @ IROS/ICRA
 - workshops/tutorials/invited sessions @ IROS/ICRA
 - journal special issues in TRA/RAM
- New TC on Intelligent Transportation Systems
 - Chairs: Stramigioli & Broggi
 - parallel TC on Robotics & Automation in ITS Council



Actions (cont'd)



- Task Force on Safety, Security and Rescue Robots
(joint initiative with CAB)
 - devoted TC (co-chaired by Murphy, Fiorini & Tadokoro)
 - operational meeting in Lausanne
 - international workshop SSRR'03 (Tampa, Feb)
- CPRA'02
 - 2nd edition of joint workshop with CSS (Las Vegas, Dec)
 - General Chair: Christensen, Program Chair: Bicchi
 - 14 lecturers
 - edited volume



Actions (cont'd)



- DL Program
 - detailed instructions w/ selection criteria & DL travel plans posted on RAS homepage
 - greater promotion throughout chapters and local sections via email roster
 - four visits approved in '02 (... little budget still available)
 - budget increase from \$ 4,500 to \$ 6,000 for '03
 - collected suggestions for appointing new Lecturers



TC Reports



- Agricultural Robotics
 - focused sessions @ M2VIP'02
- Computer and Robot Vision
 - RAM special issue on Panoramic Robotics: unexpected high number of submissions (Sep'02)
 - Papanikolopoulos' invited talk @ DSP'02 + ARO'02
- Human-Robot Interaction and Coordination
 - workshop @ ICRA'02
 - workshop @ IROS'02
 - TC meeting @ IROS'02
 - web site update



TC Reports (cont'd)



- Instrumentation and Measurement
 - new Co-Chair: Emil Petriu
 - parallel TC on Robotics & Automation in IM Society
 - development of web site
 - organization of intrn'l workshop on Intelligent Robotic Instrumentation and Measurement Technology (Fall'03)
 - seeking industrial & government agency partners interested in development of case studies and standards for Intelligent Distributed Robotic Sensor Agents for Environment Monitoring and Intervention



TC Reports (cont'd)



- Intelligent Transportation Systems
 - started in July'02
 - development of web site: **intent to adopt portal concept (possible financial support)**
 - promoting TC @ society booth
 - planned proposal of RAM special issue on Robotic Technologies applied to ITS ('03)
 - planned proposals of invited sessions @ IROS'03 + ITSC'03
 - investigation for co-sponsorship of IV'04
- Manufacturing Automation
 - participation to ad-hoc working committee on new Transactions
 - TRA special issue on Fixturing & Workholding (CFP publ'd)



TC Reports (cont'd)



- Medical Robotics
 - special issue of Autonomous Robots on Rehabilitation Robotics: 2 numbers to be published in Jan+Apr'03
 - TRA special issue on Medical Robotics: in preparation
 - invited sessions @ IROS'02 + EMBS'02
 - Dario's invited talks @ ISRA'02 + MMAR'02 + EMBS'02
 - contribution to proposal for RAS/EMBS joint conference on Biomedical Robotics (Feb'04)
 - support in start-up of EU-funded joint projects
 - improved relationship w/ EURON IG on Biomedical Robotics
 - support in establishment of intn'l collaborations
 - promoting TC @ society booth
 - 29 active members from 12 countries



TC Reports (cont'd)



- Multisensor Fusion and Integration
 - contribution to MFI'03
- Online and Internet Robotics
 - change of name from Online Robots
 - special issue of Autonomous Robots on Online and Internet Robots: submissions due by Sep'02
 - workshop @ ICRA'02
 - subcommittee on Educational Applications (special session @ ICRA'02)
 - Gallagher's web-based course on Autonomous Robotics @ Wright State Univ: using Khepera robot w/ link online



TC Reports (cont'd)



- Programming Environment in Robotics & Automation
 - TRA special section on Object-Oriented Distributed Control Architectures w/ survey paper: publ'd in Aug'02
- Prototyping for Robotics & Automation
 - new Co-Chair: I-Ming Chen ... addn'l Co-Chair from Europe
 - invited sessions @ ICARCV'02
 - update of web site
 - preparation of IEEE Press book
 - planned proposal of invited session @ IROS'03



TC Reports (cont'd)



- Robot Motion and Path Planning
 - workshop + tutorial @ IROS'02
- Safety Security and Rescue Robots
 - task force development
 - intn'l workshop SSRR'03 (Tampa, Feb)
 - visiting US Marine facility with experts interested in working in USAR
 - proposal of tutorial @ ICRA'03



TC Reports (cont'd)



- Semiconductor Factory Automation
 - RAM special issue on Recent Advances in Semiconductor Factory Automation: papers under review
 - proposal of invited sessions @ ICRA'03 (strong industrial participation)
 - promoting TC @ society booth
 - preparing two tutorial papers ...
 - 33 active members



TC Reports (cont'd)



- Service Robots
 - maintenance of web portal (mailing list getting regular subscriptions + interaction w/ labs/companies)
 - organized 1st Intn'l Cleaning Robots Contest @ IROS'02
 - contribution to organization of ROMAN'02
 - conceptualizing Service Robotics Newsletter
 - organizing 1st workshop on Advances in Service Robotics (Italy '03)
 - organizing visits to companies w/ potential interest in service
 - providing technical support to labs involved in service robotics development



TC Reports (cont'd)



- Underwater Robotics
 - joint workshop @ ICRA'02 (w/ TC Mobile Robots): large turnout
 - four regular sessions @ ICRA'02 (the highest ever) ... continuing @ ICRA'03
 - Yuh serving as IROS'03 Program Chair
 - planned proposals of workshop + invited session @ IROS'03
 - planned proposal of TRA special issue on Underwater Robotics
- Virtual Reality in Robotics
 - planned proposal of TRA special issue on Haptic Interface



TC Reports (cont'd)



- Nothing to report
 - Automatic Identification
 - Discrete Event Dynamic Systems
 - Micro/Nano Robots
 - Mobile Robots
 - Sensor Guided Manipulation in Automation
 - Teleoperation and Telerobotics (Hamel & Dubey just appointed as Co-Chairs)



Motions



- *Establish an Award for the most active TC*

- *Establish Ad-Hoc Committee to analyze the Awards & Nominations process, and report @ next Spring Mtg*
 - *to include Representatives from Standing Awards & Nomination Committees*



Perspective



- TC dynamic nature
 - terminate inactive TC's
 - start new TC's on emerging areas
 - further enhance TC promotion
 - prepare database with TC activities story log since '00
 - evaluate opportunity to create interactive web meta-shell
 - evaluate opportunity to seek for TC's contributions to CD-ROM on R&A state-of-art for distribution outside, e.g. companies, schools, ... (joint initiative with Education Comm)
- DL Program
 - establish 3-year term since '02, renewable
 - nomination of new Lecturers
 - establish metrics to evaluate return-of-investment



Other



- Representative ITS Council (Stramigioli)
 - **report** after attending council meeting in Singapore
- Representatives NN Council (Fukuda, Meng)
 - NN Society established
- Representative Sensors Council (Lumelsky)
 - interim report to PAB
- IEEE TAB NTD Committee (Khatib) +
Standards Standing Committee (Hamel)
 - intent to collect contributions from TC's
- Industrial Activities Standing Committee (S. Lee)
 - **report (jointly with LRPC)**
- Nothing to report
 - Representatives Nanotechnology Council (Hsia, Requicha)