

UC San Diego

CONTEXTUAL ROBOTICS INSTITUTE

2016 FORUM

SHARED AUTONOMY:
New Directions in Human-Machine Interaction

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PRESENTATIONS

| | | |
|---------------------|---|---|
| 8:00 AM | REGISTRATION + CONTINENTAL BREAKFAST | |
| 8:30 AM | <p>Welcome Remarks</p> <p>Albert P. Pisano Dean, Jacobs School of Engineering</p> <p>Carol Padden Dean, Division of Social Sciences</p> | <p>Matt Grob Executive VP and CTO, Qualcomm Technologies, Inc.</p> |
| 9:00 AM | <p>Henrik Christensen Director, Contextual Robotics Institute Professor of Computer Science UC San Diego</p> | A NATIONAL PERSPECTIVE ON ROBOTICS |
| 9:30 AM | <p>Frank Dellaert Technical Project Lead, Facebook Professor, Georgia Tech</p> | FACTOR GRAPHS AS A LINGUA FRANCA IN ROBOTICS |
| 10:00 AM | NETWORKING BREAK (30MIN) | |
| 10:30 AM | <p>Jorge Cortes Professor of Mechanical and Aerospace Engineering, UC San Diego</p> | ENABLING HUMAN-SWARM COORDINATION |
| 11:00 AM | <p>James Kuffner CTO, Toyota Research Institute</p> | CLOUD ROBOTICS: INTELLIGENT MACHINES IN A CLOUD-CONNECTED WORLD |
| 11:30 AM | <p>Raj Talluri Senior VP, Qualcomm</p> | INNOVATIONS IN VISUAL PROCESSORS FOR EMBEDDED VISION AND ROBOTICS APPLICATIONS |
| NOON | LUNCH (60MIN) | |
| 1:00 PM | <p>Liam Pedersen Principal Researcher Nissan Motor Company</p> | SOCIALLY ACCEPTABLE AI-BASED URBAN DRIVING |
| 1:30 PM | <p>Bob Touchton Chief Autonomy Scientist, Leidos</p> | DEVELOPING AND EVALUATING SAFE NAVIGATION OF AUTONOMOUS SHIPS AT SEA |
| 2:00 PM | <p>Ayşe Saygin Professor of Cognitive Science UC San Diego</p> | SOCIAL ROBOTICS AND NEUROSCIENCE |
| 2:30 PM | Closing Remarks | |
| 2:45 PM- 5:00 PM | TECHNOLOGY SHOWCASE + NETWORKING RECEPTION | |

TECHNOLOGY SHOWCASE

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|---|---|
| Coordinated robotics | Tom Bewley Mechanical & Aerospace Engineering |
| RUBI project and robotic rodent | Andrea Chiba Cognitive Science |
| Disaster response <i>Northrop Grumman Autonomy Challenge Project</i> | Jorge Cortes Mechanical & Aerospace Engineering |
| Brain-computer interface demo | Virginia de Sa Cognitive Science |
| Machine learning projects <i>Northrop Grumman Autonomy Challenge Project</i> | Rajesh Gupta and Zhuowen Tu Computer Science & Engineering, Cognitive Science (respectively) |
| Underwater robotics and computer vision | Ryan Kastner Computer Science & Engineering |
| Drone Lab demos <i>On 2nd floor of Atkinson Hall</i> | Falko Kuester Structural Engineering, Computer Science & Engineering, and Qualcomm Institute |
| Human-robot teaming and healthcare robotics | Laurel Riek Computer Science & Engineering |
| Drones that sniff out forest fires | Tajana Simunic Rosing Computer Science & Engineering |
| Unmanned-vehicle wildlife survey in Belize jungle | Curt Schurgers Qualcomm Institute Engineers for Exploration Program |
| Bioinspired robotics and design | Michael Tolley Mechanical & Aerospace Engineering |
| Autonomous vehicle demonstrations | Mohan Trivedi Electrical & Computer Engineering |
| NanoRobotics | Joseph Wang, Yi Chen and Liangfang Zhang NanoEngineering |
| Snake-like surgical robots, robot motion planning, robot muscles, and augmented-reality surgery | Michael Yip Electrical & Computer Engineering |

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ContextualRobotics.ucsd.edu

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JACOBS SCHOOL OF ENGINEERING

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SOCIAL SCIENCES


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