

Mechanical Engineering/Aeronautics

Session **M**

Room: 125 Steele

10:00 - 10:20 AM	Anik A. Debnath	Creating an Embedded System to Control the UCLA/Caltech Epidural Spinal Cord Implant	Joel W. Burdick <i>Professor of Mechanical Engineering and Bioengineering</i> Tom Desautels <i>Graduate Student in Mechanical Engineering</i>
10:20 - 10:40 AM	Christine L. Fuller <i>Kirk and Marjory Dawson Family SURF Fellow</i>	Reinventing the Wheel: Development of a Collapsible Wheel for the Axel Rover	Joel W. Burdick <i>Professor of Mechanical Engineering and Bioengineering</i> Pablo Abad-Manterola <i>Graduate Student in Mechanical Engineering</i>
10:40 - 11:00 AM	Ga Il Lee <i>Frank W. Wood SURF Fellow</i>	Developing a Miniature Robotic Neural Recording Micro-Drive	Joel W. Burdick <i>Professor of Mechanical Engineering and Bioengineering</i> Paul Hebert <i>Graduate Student in Mechanical Engineering</i>
11:00 - 11:20 AM	Nitin Sharma <i>William Hassenzahl Family SURF Fellow</i>	Microprocessor System to Stimulate/Record a High Density Electrode Array	Joel W. Burdick <i>Professor of Mechanical Engineering and Bioengineering</i> Tom Desautels <i>Graduate Student in Mechanical Engineering</i>
11:20 - 11:40 AM	Aditya S. Bhujle <i>Larson Scholar</i>	Computational Fluid Dynamics and Thermal Analysis of a Titan Montgolfiere	Timothy E. Colonius <i>Professor of Mechanical Engineering</i> Jeffrey Hall <i>Senior Engineer, JPL</i>
11:40 AM - 1:00 PM	LUNCH		
1:00 - 1:20 PM	Calvin Kuo <i>John and Maria Laffin Trust SURF Fellow</i>	Campus Water Uses and Potential Water Efficiencies	Melany L. Hunt <i>Professor of Mechanical Engineering</i> John Onderdonk <i>Manager for Sustainability Programs</i>

1:20 - 1:40 PM	Edward K. Lee	Carbon Emissions Modeling of Caltech	Melany L. Hunt <i>Professor of Mechanical Engineering</i> John Onderdonk <i>Manager for Sustainability Programs</i>
1:40 - 2:00 PM	Keir C. Gonyea <i>Dr. Chandler C. Ross SURF Fellow</i>	Optimization of Velocity Interferometer for Any Reflecting Surface (VISAR)	Guruswami Ravichandran <i>John E. Goode, Jr., Professor of Aeronautics and Mechanical Engineering</i> Justin Brown <i>Graduate Student in Mechanical Engineering</i>
2:00 - 2:20 PM	John A. Ulvestad University of North Dakota	In-Situ Instruments for Extreme Environments	Alberto E. Behar <i>Senior Member of the Technical Staff, JPL</i> Jaret B. Matthews <i>Member of the Technical Staff, JPL</i>