**12:00 PM SD II-33: F. Bolger, R. Cornely, B. Sauers and K. Darvish (A), “****Development of a Shock Tube for Research in Traumatic Brain Injuries”**

**12:20 PM SD II-32: R. Nazian, K. Parkins, R. Pennock, S. Selkregg and R. Cohen (A), “****Testing of Yamaha Genesis 80FI Engine for the Formula SAE Racecar”**

**12:40 PM SD II-26: P. Kobylkevich, K. Lewis, E. Wienckoski and V. Peridier (A), “****Optimizing Damper Stiffness in Formula Racecars Using MR Fluid”**

**1:00 PM SD I-04: L. Cignavitch, R. Cras, C. Sennott, M. Stanoch and O. Diloyan (A), “****Generation of Electricity from a Moving Vehicle Utilizing a Flexible Kinetic Energy Collecting Element”**

**1:20 PM SD I-05: A. Bachmanov, P. Henry, D. Kim and D. Vainchtein (A), “****Improving the Efficiency of Viscous Mixing Utilizing Chaotic Laminar Flow”**

**1:40 PM SD I-06: R. Baker, C. Shannon, S. Teterus and V. Peridier (A), “****Inertial Suspension System to Minimize Tire Load Variation on a Formula SAE Racecar”**

**2:00 PM BREAK**

**2:40 PM SD II-24: D. Duong, J. Bullock, I. Kamara, D. Johnson and A. Diloyan (A), “****Enhanced Wind Turbine Performance using Compliant Rotor Technology”**

**3:00 PM SD II-15: M. Lukas, N. Prodigalidad, A. Diloyan (A), K. Carmody (A) and C. Holliday (A), “Diesel Propulsion Drone”**

**3:20 PM SD II-14: N. Elkaddi, T. Heffernan, J. Li, D. Lin and N. Pleshko (A), “An Apparatus to Study the Effects of Mechanical Input on Articular Cartilage Growth”**

**3:40 PM SD II-13: S. Barrett, J. Childs, D. Cun, E. Messina and P. Hutapea (A), “****Development of a Hybrid Fuel Cell Electric Powertrain”**

**4:00 PM SD II-19: A. Gland, M. Judge, L. Orner and S. Bontha (A), “****Effect of Coolant Passage Design Parameters on Fluid Pressure and Velocity Distribution”**

**12:00 PM SD I-02: J. Eng, M. Forrest, S. Goldson, R. Magee and F. Udoeyo (A), “****Strength and Leachability of Slag-Cement Bypass Monolith for Utility Trenches”**

**12:20 PM SD I-03: J. Hanna, H. Mohammad, B. Petrun, E. Scalgione and B. Zhang (A), “****Elevated Pedestrian Interchange on Temple University’s Campus”**

**12:40 PM SD 1-07: M. Calloway, E. Francis-Wright, J. Lester, K. Tadmi, M. Boufadel (A) and J. Chen (A), “****Wastewater Heat Extraction for Commercial HVAC Applications”**

**1:00 PM SD II-29: B. Kovach, G. Leonhard, F. Benoit, A. Khalil and F. Udoeyo (A), “****Predicting Moment and Shear Capacities of SCC Using Dimensional Analysis”**

**1:20 PM SD II-09: A. Baxter, A. Branco, J. Laskin, L. Solomon and R. Ryan (A), “****Design and Construction of a Solar Powered Space Heater”**

**1:40 PM SD II-05: P. Attalla, J. Barta, N. Boateng, H. Patel and A. Pillapakkam (A), “****Pure Energy”**

**2:00 PM BREAK**

**2:40 PM SD II-16: B. Angelina, B. Bruening, C. Eckert, E. Kibaroglu and B. Zhang (A), “****Adaptive Structural Retrofits Using Building Information Modeling”**

**3:00 PM SD II-03: S. Dobron, C. Fuentespina, P. Patel, C. So and N. Khoury (A), “Maximizing the Performance of a Pervious Pavement System”**

**3:20 PM SD II-17: T. Akgun, D. Kapral, R. Sgarlat and R. Ryan (A), “****The Performance of an Engineered Wetland to Control Eutrophication”**

**3:40 PM SD II-30: H. Mohammad, P. Patel, E. Shepard, S. Shepard and F. Udoeyo (A), “****Evaluating CKD in Self-Consolidating Concrete Mixtures”**

**4:00 PM SD II-18: A. Muneem, M. Burns, E. Long, F. Ogunlokun and R. Ryan (A), “Improved Free-Flow Hydroturbine Performance Using a Ducted Design”**

**12:00 PM SD II-10: T. Boger, S. Kandi, R. Keyes and C. Won (A), “****Nonlinear Control of Laser Targeting System”**

**12:20 PM SD II-12:T. Adeyemi-Wilson, A. Attalla, G. Danilchenko, C. Tufts and D. Silage (A), “****Multi-Function Touch Screen Display Using Vehicle On-Board-Diagnostics”**

**12:40 PM SD II-35: J. Deleon, R. Jabar, T. Phan, B. Williams and S. Keong (A), “****Biometric Detection for Improved University Attendance”**

**1:00 PM SD II-36: G. Wells, J. Zebly, D. Bolger, X. Liu and J. Helferty (A), “****Suborbital Active Vibration Suppression System”**

**1:20 PM SD II-06: R. Nash, T. Nguyen, C. Santin, A. Youssef and J. Helferty (A), “****NASA Lunabotics Mining Competition”**

**1:40 PM SD II-31: Y. Haluza, M. Sehgal, G. Tedesco, R. Komulainen and T. Sullivan (A), “****Vehicle Magnetic Field Reduction for Mine Protection”**

**2:00 PM BREAK**

**2:40 PM SD II-28: T. Driscoll, F. Lin, V. Patel, T. Nguyen and F. El-Turky (A), “****Data Glove Gesture Recognition for Augmented Reality Applications”**

**3:00 PM SD II-27: S. Abdul-Malik, C. Augustin, M. McCollum, W. Maignam and Z. Delalic (A) and F. El‑Turky (A), “Universal Remote Locator Device Using an RF Transmitter and Receivers”**

**3:20 PM SD II-22: M. Ahmed, Y. Liu, H. Nguyen, S. Patel and C. Won (A), “****Indoor Aerial Autonomous Coaxial Rotorcraft”**

**3:40 PM SD II-21: K. Carter, R. Hughes, K. Vekaria, S. Biswas (A) and J. Chen (A), “Engine Heat Power Recovery From Thermoelectric Generation”**

**4:00 PM SD II-20: T. Moua, Y. Shi, K. Te, F. Ferrese and S. Biswas, “****Intelligent Reconfigurable Power Grid”**

**12:00 PM IE-01: D. Connelly, B. Cushing, P. Orthey, J. Shaw, J. Swieson and J. Picone (A), “****SoundSync: A Better Way to Groove”**

**12:20 PM IE-02: M. Hassan, A. Park, M. Rieger, L. Sybrandy and J. Picone (A), “****The Goldberg Water Dispenser – A Self-Propelled, Sequential Multi‑Component Water Dispenser”**

**12:40 PM SD II-01: G. Fava, J. Gregorio, J. Jackson, D. McGovern and J. Picone (A), “****Hybrid DSP/Vacuum Tube Amplifier”**

**1:00 PM SD II-04: R. Burke, S. Demmer, K. Nuzha, K. Ravasio, M. Boufadel (A), R. Ryan (A), and N. Khoury (A), “****Efficient Energy Using a Submersed Closed-Loop Geothermal System”**

**1:20 PM SD II-23: J. Lester, E. Mile, S. Fehr and Z. Delalic (A), “Implantable Blood Pressure Monitor”**

**1:40 PM SD II-11: T. Gallen, J. Huber, P. Vila and R. Ryan (A), “****Harvesting Stormwater Runoff for Urban Farm Irrigation”**

**2:00 PM BREAK**

**2:40 PM SD I-01: A. Moscato, R. Gray, M. Leonetti, A. Sworob and J. Picone (A), “****Automatic Guitar Tuning with Improved Accuracy Using FFT’s and Harmonic Addition to Detect Fundamental Frequencies”**

**3:00 PM SD II-08: Y. Balter, J. Buranich, J. Gro, I. Mushaeva and I. Obeid (A), “****A Non-invasive Brain to Computer Interface System for Video Gaming”**

**3:20 PM SD II-02: A. Atif, A. Lane, E. Panzo, M. Swartwood, B. Worthington, W. Miller (A) and B. Zhang (A), “****ASCE 2011Concrete Canoe Competition”**

**3:40 PM SD II-34: H. Jose, T. Singh, T. Starosta, A. Thomas, M. Kiani (A) and B. Wang (A), “****Low Cost Device for Testing Aerobic Performance in Rodents”**

**4:00 PM SD II-07: R. Hagel, S. Meyer, A. Patel, D. Reo, and S. Ridenour (A), “****Energy Modeling to Reduce Energy Consumption”**