



# IEEE Global Humanitarian Technology Conference 2016 *PROGRAM AT A GLANCE*

Time	Thursday, October 13, 2016
1:30pm - 6:00pm	<b>Registration opens 1:30 - 6:00 pm (Grand Foyer)</b>
10:00am - 1:30pm	IEEE Humanitarian Activities Committee (HAC) Focus Group 10:00 am - 1:30 pm (Cascade 1 &2)
2:30pm - 5:30 pm	IEEE HAC Participatory Workshop 2:30 - 5:30 pm (Cascade 1 & 2)
6:30pm - 8:00pm	<b>MGA Young Professionals Welcome Reception 6:30 - 8:00 pm (Grand 2/3)</b> Keynote speaker I: Dr. Bartosz Wojszczyk - President & CEO, Decision Point Global “Influence of life quality in developing countries by disruptive & transformational technologies”

Time	Friday, October 14, 2016
7:00am - 8:00am	<b>Registration Open (Grand Foyer)</b>
8:00am - 9:30am	<b>Opening Plenary (Grand 2/3)</b> Conference Welcome -- Joe Decuir (GHTC 2016 Chair) Opening Remarks -- Mike Andrews (IEEE) Opening Keynote: Walt Hubbard, Director of King County Office of Emergency Management
9:30am - 10:00am	<b>Break</b>
10:00am - 11:30am	<b>Parallel technical presentations (Northwest 1-3 and Evergreen 1-4)</b>

<b><u>Energy track (session A1) – chaired by Mei-Chien Lu</u></b>		
10:00		<b>Energy track opening remarks - session chairs</b>
10:10	1570265777	Engineering and Socio-Economic Aspects of Sustainable Energy <i>Mehrdad Ehsani and Hussein Mohammad Khalaf Al-Masri (Texas A&amp;M University, USA)</i>
10:30	1570275194	Concentrating Solar Power Systems with Advanced Thermal Energy Storage for Emerging Markets <i>Mariana Lanzarini Lopes, Nathan G Johnson and Ellen Stechel (Arizona State University, USA); James Miller (Sandia National Laboratories, USA)</i>
10:50	1570283129	E-Cycle: An Offgrid Solution for Rural Electrification <i>Amritanand S (Amrita Vidyalayam, India); Divya Pullarkatt, Gosh G. and Tinu Vinod (Amrita Vishwa Vidyapeetham, India)</i>

<b><u>Health track (session A2) – co-chaired by Charmayne Hughes and Alan Mickelson</u></b>		
10:00	1570282469	A Wearable Diagnostic device to combat Children's Pneumonia <i>Mala Krishnamoorthi, Manoj Kumar Kalaiselvan, Vignesh Ravichandran and Manoj Kumar Baskaran (Easwari Engineering College, Chennai, India)</i>

10:20	1570275171	Optical sensing system for detecting water adulteration in milk <i>Aditya Dave and Dishant Banwari (Birla Institute of Technology and Science-Pilani, K. K. Birla Goa Campus, India); Satyammm Srivastava (CSIR CEERI, India); Shashikant Suresh Sadistap (CEERI Pilni &amp; Head, Scientist_EII, India)</i>
10:40	1570270441	MUMS - Mobile Urinalysis for Maternal Screening <i>Unyoung Kim, Silvia Figueira, Blair Koeneman, Amy Miller, Joseph Neumeyer and Jake Prince (Santa Clara University, USA)</i>
11:00	1570274771	Micronutrient Deficiencies in the Developing World: An Evaluation of Delivery Methods <i>Dhruv Rao, Connor Higgins, Hartini Margot, Taylor Lyle and Shannon McFalls (The Pennsylvania State University, USA); Eric Obeysekare (Pennsylvania State University, USA); Khanjan Mehta (Penn State, USA)</i>

**Connectivity & Communication track (session A3) – chaired by Jim Miller**

10:00	1570281654	Maintaining both availability and integrity of communications: challenges and guidelines for data security and privacy during disasters and crises <i>Flor Alvarez (Technische Universität Darmstadt &amp; Secure Mobile Networking Lab, Germany); Paul Gardner-Stephen (Flinder University, Australia); Matthias Hollick (Technische Universität Darmstadt &amp; Secure Mobile Networking Lab, Center for Advanced Security Research Darmstadt, Germany)</i>
10:20	1570283855	Mobile Infrastructure for Coastal Region Offshore Communications and Networks <i>Sethuraman N Rao (Amrita Vishwa Vidyapeetham University, India); Maneesha Vinodini Ramesh (Amrita Vishwa Vidyapeetham, Amrita University, India); Venkat Rangan (Amrita University, India)</i>
10:40	1570282886	Development of Mobile Learning Application to Promote World Heritage Site Preservation Awareness: Case of Luang Prabang, Lao PDR <i>Yew Siang Poong, Shinobu Yamaguchi and Jun-ichi Takada (Tokyo Institute of Technology, Japan)</i>
11:00	1570274923	Developing a Lean Data Management System for an Emerging Social Enterprise <i>Eric Obeysekare (Pennsylvania State University, USA); Anthony Marucci and Khanjan Mehta (Penn State, USA)</i>

**Disaster Management track (session A4) – chaired by Eric Ma**

10:00	1570283317	Development and Deployment of the IEEE MOVE Emergency Relief Vehicle <i>James M. Conrad (University of North Carolina at Charlotte, USA); Mary Ellen Randall (Ascot Technologies, USA); Gregg Vaughn (University of Alabama Birmingham, USA); Percy F. Shadwell, Jr. (Shadwell Technical Services, USA); Grayson W. Randall (Ascot Technologies, USA)</i>
10:20	1570283323	Technical Capabilities of the IEEE MOVE Emergency Relief Vehicle <i>Grayson W. Randall (Ascot Technologies, USA); James M. Conrad (University of North Carolina at Charlotte, USA); Gregg Vaughn (University of Alabama Birmingham, USA); Mary Ellen Randall (Ascot Technologies, USA); Percy F. Shadwell, Jr. (Shadwell Technical Services, USA)</i>
10:40	1570272635	Thermal Autonomous Housing for the Developing World: A Case Study in Bhuj <i>Emma Nelson (Massachusetts Institute of Technology &amp; MIT Tata Center for Innovation and Design, USA); Leon Glicksman (Massachusetts Institute of Technology, USA)</i>
11:00	1570283307	Web-based, multi-platform, centralized, offline-compatible supply chain management system for emergency responses <i>Dawei Wang and Yuehwern Yih (Purdue University, USA); John Service, Lionel Lajous and Sarah Robbins-penniman (Catholic Relief Service, USA)</i>

**Humanitarian Challenges & Opportunities track (session A5) – chaired by Ed Perkins**

10:00	1570266483	Humanitarian Engineering Opportunities and Challenges in Rural Dominican Republic: A Case Study of El Cercado <i>Savanna Blair, Danford Jooste, Katie Kuwahara, Devyn Bryant, Christopher Ashkar, Sam Burt and Deanna Wolf (University of San Diego, USA); Joanne Peterson (San Pedro Parish, Dominican Republic); Truc T. Ngo (University of San Diego, USA)</i>
10:20	1570282844	Solar based Lemon Grass Essential Oil Distillation for Sustainability and Livelihood in Tribal Community <i>Udaya Bhaskar Reddy Ragula (Amrita Vishwa Vidyapeetham University &amp; Center of Excellence in Advanced Materials and Green Technologies, India); Sriram Devanathan (Amrita Vishwa Vidyapeetham, Amrita University &amp; Center of Excellence in Advanced Materials and Green Technologies, India); Renjith Mohan (Amrita Vishwa Vidyapeetham, India)</i>
10:40-11:20	1570281464	Panel: Unmanned Aerial Vehicles—Promise and Practice <i>Sindri Kinnier (Palladium, USA); Adam Curry (BD Technologies, USA); Renee Van de Weerd (UNFPA, USA); Jonathan Dixon (Palladium, USA)</i>

11:30am - 12:30pm	<b>Panel Session: Building effective distribution channels for humanitarian technologies (Grand 2/3)</b> <i>Panelists: Emma Colenbrander (co-founder, Pollinate Energy), Steele Lorenz (co-founder and CEO, MyRain), Jodie Wu (founder and CEO, Global Cycle Solutions), Jackie Stenson (panel moderator, co-founder of Essmart)</i>	
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12:30pm - 1:30pm	<b>Sponsor Speech: Kartik Kulkarni (SIGHT), and Paul Cunningham (HAC) Lunch (Grand 2/3)</b>	
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1:00pm - 6:30pm	<b>Exhibits Open (Grand 1)</b>	
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1:30pm - 3:00pm	<b>HAC Public Workshop – Supporting Global Development (Paul Cunningham) (Grand 2/3)</b> <b>Parallel technical presentations (Northwest 1-3 and Evergreen 1-4)</b>	
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**Energy track (session B1) – chaired by Mehrdad (Mark) Ehsani**

1:30	1570281051	A Universal Charge Controller for Integrating Distributed Energy Resources <i>Shammya S Saha, Samantha Janko and Nathan G Johnson (Arizona State University, USA); Robin Podmore (IncSys, USA); Alain Riaud (IEEE Smart Village, France); Raymond Larsen (SLAC National Accelerator Laboratory, USA)</i>
1:50	1570265042	Electronic Load Controller Design and Simulation for Remote Rural Communities A Powerhouse ELC Compatible with Household Distributed-ELC Slow Cookers in Nepal <i>Johannes Chan and William Lubitz (University of Guelph, Canada)</i>
2:10	1570282950	A Limited-Power-Limited-Energy System Design Approach for Remote Areas <i>Syed Abbas (Sunvolts (Pvt) Limited, Pakistan)</i>
2:30	1570281886	A Systematic Methodology to Transform Campuses in the Developing World into Sustainable Communities <i>Ekanath Rangan and Krishna Das (Amrita University, India)</i>

**Health track (session B2) – co-chaired by Charmayne Hughes and Alan Mickelson**

1:30	1570274761	Inexpensive Urinalysis Test Strips to Screen for Diabetes in Developing Countries <i>Nathan Arnett, Alice Vergani and Amanda Winkler (Pennsylvania State University, USA); Sarah Ritter (Penn State University, USA); Joshua Stapleton (Pennsylvania State University, USA); Khanjan Mehta (Penn State, USA)</i>
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1:50	1570274808	Stamping: a low-cost manufacturing method to deposit assays <i>Gabrielle Gundermann (Penn State University &amp; Humanitarian Engineering and Social Entrepreneurship, USA); Shweta Sen and Sarah Ritter (Penn State University, USA); Khanjan Mehta (Penn State, USA)</i>
2:10	1570283297	IoT-enabled Air Quality monitoring device: A low-cost Smart Health solution <i>Akshata Tapashetti, Divya Vegiraju and Tokunbo Ogunfunmi (Santa Clara University, USA)</i>
2:30	1570283247	Case study: Transforming Healthcare for the Underprivileged using HeMoClo <i>Sudhanshu Pant (Mobilitas Technologies, India)</i>

**Connectivity & Communication track (session B3) – chaired by Jim Miller**

1:30	1570270374	Design and Implementation of a Low-cost and Reliable Wireless Mesh Network for First-Response Communications <i>Nestor Michael C. Tiglao (University of the Philippines, Philippines)</i>
1:50	1570283311	The Balsapuerto Network: A Case Study in Jungle Internet <i>Alan Mickelson (University of Colorado at Boulder, USA); Martin Murillo (Notre Dame, USA)</i>
2:10	<i>Special presentation</i>	Panel: Network deployment. <i>Facilitator: James Miller</i>

**Disaster Management track (session B4) – chaired by Eric Ma**

1:30	1570282927	The exploration of alternative phone charging strategies for disaster or emergency situations <i>Watcharachai Kongsiriwattana (Flinders University, Australia); Paul Gardner-Stephen (Flinder University, Australia)</i>
1:50	1570282519	Smart-Phone Battery-life short-fall in disaster response: Quantifying the gap <i>Paul Gardner-Stephen (Flinder University, Australia); Watcharachai Kongsiriwattana (Flinders University, Australia)</i>
2:10	1570283053	Agile Development of Disaster Information Systems for the Kumamoto Earthquake, How geeks should respond in deadly disaster situations <i>Teruhiro Mizumoto (Nara Institute of Science and Technology, Japan); Takashi Okumura (National Institute of Public Health, Japan)</i>
2:30	1570283583	Delay and Energy Optimization in Multilevel Balanced WSNs for Landslide Monitoring <i>Balaji Hariharan and Venkat Rangan (Amrita University, India); Simi Surendran (Amrita University, Kuwait); Rekha P (Amrita Vishwa Vidyapeetham, India); Aryadevi Devidas (Amrita Vishwa Vidyapeetham &amp; Amrita University, India); Maneesha Ramesh (Amrita University, India)</i>

**Deployment track (session B5) – co-chaired by Jackie Stenson and Roger Johnson**

1:30	1570283141	Measuring usage and adoption of improved cookstoves in Ugandan households using quantitative and qualitative methods <i>Prithiviraj Sundararaman, Amit Gandhi, Megha Hegde, Kendra Leith, Daniel Sweeney and Daniel Frey (Massachusetts Institute of Technology, USA)</i>
1:50	1570283852	When Academia Meets Rural India: Lessons Learnt from a MicroGrid Implementation <i>Fabien Chidanand Robert (Amrita Vishwa Vidyapeetham, India); Ullas Ramanathan and Mukundan Br (Amrita Vishwa Vidyapeetham University &amp; Amrita Center for Wireless Networks and Application, India); Durga P (Amrita Center for Wireless Networks and Applications, India); Renjith Mohan (Amrita Vishwa Vidyapeetham, India)</i>
2:10	1570283232	Electrically Facilitated Solar Cargo Hauler - A Key to Easy and Safe Transportation of Goods without Dependency on the National Grid <i>Audrika Purbasha, Fabiha Khan, Mir S Redoy and A. K. M Abdul Azad (BRAC University, Bangladesh)</i>

2:30	1570280953	Sustainability Analysis of Off-grid Community Solar PV Projects in Malawi <i>Peter Dauenhauer and Damien Frame (University of Strathclyde, United Kingdom)</i>
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3:00pm - 3:30pm	<b>Break</b>	
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3:30pm - 5:30pm	<b>HAC Public Workshop - Supporting Global Development (Paul Cunningham) (Grand 2/3)</b>	
	<b>Parallel technical presentations (Northwest 1-3 and Evergreen 1-4)</b>	

	<b><u>Energy track (session C1) – chaired by Michael Brisbois</u></b>	
3:30	1570281953	Developing for Developing Nations: Exploring a Low-cost PV System Design Methodology <i>Nishant Narayan, Jelena Popovic, Jan-Carel Diehl and Sacha Silvester (Delft University of Technology, The Netherlands); Pavol Bauer (TU Delft, USA); Miro Zeman (Delft University of Technology, The Netherlands)</i>
3:50	1570269149	Why Not Connect? Untapped Power Markets and FACTS for Interconnecting Islanded Microgrids <i>Alexander Anderson (Odin Energy Works LLC, USA); Robin Podmore (IncSys, USA)</i>
4:10	1570255751	Participatory smartgrid control and transactive energy management in community shared solar cogeneration systems for isolated rural villages <i>Gerro Prinsloo (Stellenbosch University, South Africa); Andrea Mammoli (New Mexico University, USA); Robert Dobson (Stellenbosch University)</i>
4:30 - 5:30		<b>IEEE Smart Village Presentation: Energy, Enterprise and Empowerment</b> <i>Henry Louie (IEEE Smart Village)</i>

	<b><u>Health track (session C2) – chaired by Richard Fletcher</u></b>	
3:30	1570265888	Fighting Weight Problems and Insulin Resistance with the Metabolic Health Monitor App for Patients in the Setting of Limited Access to Health Care in Rural America <i>Zsolt Peter Ori and Ilona Ori (Ori Diagnostic Instruments LLC, USA)</i>
3:50	1570283349	Large Scale Remote Health Monitoring in Sparsely Connected Rural Regions <i>Rahul Krishnan (Amrita Vishwa Vidyapeetham, India); Ekanath Rangan (Amrita University, India)</i>
4:10	1570283345	Improving Health Information Systems in Guatemala Using Weighted Correlation Network Analysis <i>Lee Voth-Gaeddert (Missouri University of Science and Technology, USA); Devin Cornell (University of California, Santa Barbra, USA)</i>
4:30	1570273612	Case Study: Development of a reliable, robust, and scalable oxygen concentrator platform technology to accelerate oxygen delivery in low-resource settings <i>Eugene Saxon (PATH, USA); Grace Wu (Boston University, USA); Alec Wollen, Jaclyn Delarosa, Glenn Austin and Darin Zehrung (PATH, USA)</i>

	<b><u>Student Best Paper Presentations (session C3) – chaired by Charmayne Hughes</u></b>	
3:30 - 3:55	1570281051	A Universal Charge Controller for Integrating Distributed Energy Resources <i>Shammya S Saha (Arizona State University)</i>
3:55 - 4:20	1570272635	Thermal Autonomous Housing for the Developing World: A Case Study in Bhuj <i>Emma Nelson (Massachusetts Institute of Technology)</i>

4:20 - 4:45	1570275976	Evaluating upper-extremity (dys)function using inertial measurement unit technology and its applications to resource-constrained settings <i>Alisa Aguirre (San Francisco State University)</i>
4:45 - 5:10	1570274183	Quantification of a Latex Agglutination Assay for Bacterial Pathogen Detection in a Low-Cost Capillary-Driven Fluidic Platform <i>Kyle Pietrzyk (Santa Clara University)</i>
5:10 - 5:35	1570282522	Image Based Spare Parts Reconstruction for Repairing Vital Infrastructure after Disasters <i>Julius Schöning and Gunther Heidemann (Osnabrück University, Germany)</i>

**Education track (session C4) – chaired by Adil Usman**

3:30	1570282836	Elevating Visually Challenged Children towards Science and Technology Education through Scaling-up Humanitarian Technologies by networking with higher learning centres, NGOs, and Parent-Teacher partnerships <i>Ranjit Nair (InApp Information Technologies, India); Ramkamal Manoj (Managing Trustee and Chief Mentor Chakshumathi, India); Mani K p (Student IIT Madras, India); Piyush Chanana (GGSIPU, India); Damodaran Kunnummal (INGCORE &amp; Promotion of Renewable Energy, India)</i>
3:50	1570281940	Tech4SocialChange: crowd-sourcing to bring migrants experiences to the academics <i>André Reis, Jorge Sá Silva, David Nunes, Hugo Aguiar, Hugo Damião Dias and Ricardo Barbosa (University of Coimbra, Portugal); Soraya Sinche and Carlos Herrera (Escuela Politécnica Nacional, Ecuador); André Rodrigues (Centre of Informatics and Systems of the University of Coimbra &amp; Polytechnic Institute of Coimbra, ISCAC, Portugal); Ashley Figueira, Duarte Raposo, Vasco Pereira and Fernando Boavida (University of Coimbra, Portugal)</i>
4:10	1570283030	Exploring Problem Definition in Student Global Humanitarian Project Cases in the Literature <i>Matthew Vedin and Rebecca Hardin (University of Michigan, USA)</i>
4:30	1570282849	Achieving Critical Mass: Execution of a 5-year strategy to raise awareness levels for engineering as a career option <i>Ranjit Nair (Sokanathapadam, India); Jithin Krishnan (Instrumentation Lab &amp; SCTIMST, India); Namith Najeed (Thrikkanapuram &amp; Kuttippuram, India); Ajin Baby (COO, India); Shahim Baker (Director, India)</i>
4:50	1570274728	Case study: Challenge Driven Social Entrepreneurship and High Impact Student Engagement <i>Leslie E. Ruyle (Texas A&amp;M University &amp; Center on Conflict and Development, USA); Magdalini Lagoudas and Rodney Boehm (Texas A&amp;M University, USA)</i>

**Deployment track (session C5) – co-chaired by Jackie Stenson and Roger Johnson**

3:30	1570282768	ROGER: Robust and Rapidly Deployable GSM Base Station and Backhaul for Emergency Response <i>Joel Joseph Jr. S. Marciano (University of the Philippines &amp; Wireless Communications Engineering Laboratory, Philippines); Patth Rick Ramirez (University of the Philippines Diliman &amp; Wireless Communications Engineering Laboratory, Philippines); Philip A Martinez (University of the Philippines &amp; Electrical and Electronics Engineering Institute, Philippines); Mary Claire Barela (University of the Philippines - Diliman, Philippines)</i>
3:50	1570283222	A Testbed For WiLDNet and White Space <i>Wallace Kenyon and Alan Mickelson (University of Colorado at Boulder, USA); Alexander Anderson (Odin Energy Works LLC, USA)</i>
4:10	1570283861	Live-in-Labs: Rapid Translational Research and Implementation-Based Program for Rural Development in India <i>Maneesha Vinodini Ramesh (Amrita Vishwa Vidyapeetham, Amrita University, India); Renjith Mohan and Soumya Menon (Amrita Vishwa Vidyapeetham, India)</i>

4:30	1570283085	Workshop on Technology Governance in Humanitarian Settings <i>Dominik B. O. Boesl (Technische Universität München &amp; KUKA AG, Germany); Martina Bode (KUKA AG, Germany)</i>
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5:30pm - 6:30pm	<b>Break</b>	
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6:30pm - 8:00pm	<b>Dinner &amp; Awards Ceremony (Grand 2/3)</b> Region 6 Awards -- Thomas Coughlin (Region 6) Region 6 HE Award - Thomas Coughlin (Region 6) Best Student Papers Awards -- Charmayne Hughes (GHTC 2016) <b>Keynote Speaker: Alexis Bonnell, Division Chief-Applied Innovation and Acceleration, U.S. Global Development Lab, USAID</b>	
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<b>Time</b>	<b>Saturday, October 15, 2016</b>	
7:00am - 8:00am	<b>Registration Open (Grand Foyer)</b>	

8:00am - 9:30am	<b>SIGHT Workshop: Deep Dive into Creating and Sustaining Local Impact, Kartik Kulkarni</b> <b>(session D3, Northwest 3)</b> <b>Parallel technical presentations (Northwest 1-2 and Evergreen 1-4)</b>	
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<b><u>Energy track (session D1) – chaired by Sarah Ritter</u></b>		
8:00	1570275007	Short-term operation of a hybrid minigrd under load and renewable production uncertainty <i> Davide Fioriti, Romano Giglioli and Davide Poli (University of Pisa, Italy)</i>
8:20	1570282683	Impacts of using microwave oven transformers on micropower distribution grids <i> Richard Sandoval and Patricio Mendoza-Araya (University of Chile, Chile)</i>
8:40	1570274685	Intelligent Dynamic Grid Forecasting Algorithm for a Grid-Connected Solar PV Based Microgrid <i> Harini Sekar and Rajagopalan Rajashekar (Solarillion Foundation, India); Farhan Faisal (University of Illinois at Chicago &amp; Solarillion Foundation, India); Rohan Ganpati (Anna University, Chennai, India); Vineeth Vijayaraghavan (Solarillion Foundation, India)</i>
9:00	1570283271	Tool for detecting waveform distortions in inverter-based Microgrids: a validation study <i> Geir Kulia (Norwegian University of Science and Technology, Norway); Marta Molinas and Lars Lundheim (NTNU, Norway)</i>

<b><u>Health track (session D2) – co-chaired by Charmayne Hughes and Alan Mickelson</u></b>		
8:00	1570272238	Community-based neurorehabilitation in underserved populations <i> Charmayne ML Hughes and Alisa Aguirre (San Francisco State University &amp; Health Equity Institute, USA); Asif Hussain, Aamani Budhota and Domenico Campolo (Nanyang Technological University, Singapore)</i>
8:20	1570275976	Evaluating upper-extremity (dys)function using inertial measurement unit technology and its applications to resource-constrained settings <i> Alisa Aguirre (San Francisco State University &amp; Health Equity Institute, USA)</i>
8:40	1570283281	Inference System for Osteoporosis Detection <i> Reshmalakshmi Chandrasekharan (University of Kerala, India); M Sasikumar (Marian Engg. College, India)</i>

9:00	1570274903	Diagnosis of Autism Using an Eye Tracking System <i>Natalia Indira Vargas-Cuentas (Universidad Peruana Cayetano Heredia); Daniela Hidalgo (UPCH, Peru); Avid Roman-Gonzalez (Universidad Peruana Cayetano Heredia - UPCH &amp; IEEE Senior Member, Peru); Michael Powers (CCSN, USA); Robert Gilman (JH University, USA); Mirko Zimic (UPCH, Peru)</i>
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**Disaster Management track (session D4) – chaired by Eric Ma**

8:00	1570296357	Universal Laws of Disaster <i>Claudio Cioffi-Revilla (George Mason University &amp; Center for Social Complexity, USA)</i>
8:20	1570281283	WeDoCare: A Humanitarian People-centric Cyber-Physical System for the benefit of Refugees <i>Ashley Figueira, David Nunes, Ricardo Barbosa, André Reis and Hugo Aguiar (University of Coimbra, Portugal); Soraya Sinche (Escuela Politécnica Nacional, Ecuador); André Rodrigues (Centre of Informatics and Systems of the University of Coimbra &amp; Polytechnic Institute of Coimbra, ISCAC, Portugal); Vasco Pereira, Hugo Damião Dias and Duarte Raposo (University of Coimbra, Portugal); Carlos Herrera (Escuela Politécnica Nacional, Ecuador); Jorge Sá Silva and Fernando Boavida (University of Coimbra, Portugal)</i>
8:40	1570274855	A survey on IEEE 802.11-based MANETs and DTNs for survivor communication in disaster scenarios <i>Maria Salamanca and Jorge E. Camargo (Universidad Antonio Nariño, Colombia)</i>
9:00	1570279076	Disaster Management in India: An Analysis using COBIT 5 Principles <i>Chippi Mohanan and Vivek Menon (AMRITA Vishwa Vidyapeetham, India)</i>

**Connectivity & Communication track (session D5) – chaired by Jim Miller**

8:00	1570282172	An Experimental Evaluation of Delay-Tolerant Networking with Serval <i>Lars Baumgärtner (University of Marburg, Germany); Paul Gardner-Stephen (Flinders University, Australia); Pablo Graubner (University of Marburg, Germany); Jeremy Lakeman (Flinders University, Australia); Jonas Höchst, Patrick Lampe, Nils Schmidt, Stefan Schulz and Artur Sterz (University of Marburg, Germany); Bernd Freisleben (Philipps-Universität Marburg, Germany)</i>
8:20	1570274827	The Mesh Network for Refugees and Displaced Persons <i>Raghad Al Saadi (LMI, USA); Dave Evans (ASME, USA)</i>
8:40	1570283276	Demo: Triaging Deforestation Alerts <i>Chris Goodman (Bunjil Forest Watch, Australia)</i>

9:30am - 10:00am	<b>Break</b>
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10:00am - 6:30pm	<b>Exhibits Open (Grand 1)</b>
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10:00am - 11:30am	<b>Parallel technical presentations (Northwest 1-3 and Evergreen 1-4)</b>
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**Energy track (session E1) – chaired by Pritpal Singh**

10:00	1570272681	Insights on Thermal Efficiency Analysis for the Water Boiling Test <i>Cameron Quist, Matthew Jones and Randy Lewis (Brigham Young University, USA)</i>
10:20	1570276792	Development of Double Burner Smart Electric Stove Powered by Solar Photovoltaic Energy <i>Bareed Mohammad Nur, Samira Siddiqua, Sanjida Fairuz, Raonaq Jawwad, Sheri Chowdhury and A. K. M Abdul Azad (BRAC University, Bangladesh)</i>
10:40	1570274391	Energy demands of off-grid ice production <i>Matt Shields, Alexander Bouck and Patrick Duffy (Seattle University, USA)</i>
11:00	1570283229	Assessing solar lantern usage in Uganda through qualitative and sensor-based methods <i>Amit Gandhi, Daniel Frey and Victor Lesniewski (Massachusetts Institute of Technology, USA)</i>



<b><u>Health track (session E2) – co-chaired by Charmayne Hughes and Alan Mickelson</u></b>		
10:00	1570270179	Global Social Acceptance of Prosthetic Devices <i>Adam Arabian (Seattle Pacific University &amp; Refugee Open Ware, USA); Dante Varotsis (Hunter College, USA); Caitlin McDonnell (Enable International Haiti, USA); Elinor Meeks (eNABLE Community Foundation, USA)</i>
10:20	1570283260	The Role of Health Informatics in Volunteer Supported Healthcare for Underserved Populations <i>Chilukuri K Mohan (Syracuse University, USA); Dayaprasad Kulkarni (Aarogyaseva, India)</i>
10:40	1570283278	Implications of Baseline Study Findings from Rural and Deep Rural Clinics in Ethiopia, Kenya, Malawi and South Africa for the Co-Design of mHealth4Afrika <i>Paul M Cunningham and Miriam Cunningham (IIMC / IST-Africa / DSV, Stockholm University, Ireland)</i>
11:00	1570274888	Mobile Health Adoption in Burundi: A UTAUT Perspective <i>Patrick Ndayizigamiye and Manoj Maharaj (University of KwaZulu-Natal, South Africa)</i>

<b><u>Water and Sanitation track (session E3) – chaired by John Prohodsky</u></b>		
10:00	1570275238	Design and Introduction of Pit-Latrines Assistive Devices in Lira, Uganda <i>Harrison Schmachtenberger, Mei-Li Hey and Caleb Avery (University of San Diego, USA)</i>
10:20	1570254579	Evaluating Water Infrastructure and Agriculture Practices for Drought Adaptations in East Africa: A Combined Hydrological and System Dynamics Approach <i>Datu Buyung Agusdinata (Arizona State University, USA)</i>
10:40	1570283866	Micro Water Distribution Networks: A participatory method of sustainable water distribution in rural communities <i>Maneesha Vinodini Ramesh (Amrita Vishwa Vidyapeetham, Amrita University, India); Renjith Mohan (Amrita Vishwa Vidyapeetham, India); Prakash C (Amrita University, India); R Ramkrishnan, Nitin Kumar M, Deepak Brahmanandan, Ananth Kumar and Lalith Prakash (Amrita Vishwa Vidyapeetham, India)</i>
11:00	1570282636	Ultrasound assisted Stand Alone Toilet for Rural Areas <i>Prakash Sonwalkar and Dinesh Bindiganavale (Pradin Technologies Private Limited, India)</i>

<b><u>Disaster Management track (session E4) – chaired by Eric Ma</u></b>		
10:00	1570274829	Human power generator: Emergency-disaster management <i>Mahesh PJ (University of Kerala &amp; TKM College of Engineering Kollam, India); Minhas Naheem and Razak Mubafar K (University of Kerala, India)</i>
10:20	1570272634	A Multi-agent Simulation Tool for Micro-scale Contagion Spread Studies <i>Daniel B Koch (Oak Ridge National Laboratory, USA)</i>
10:40	1570274930	3D Printing for Disaster Preparedness, Making Life-saving supplies On-Site, On-Demand, On-Time <i>Srinivas Saripalle (IEEE, USA)</i>
11:00	1570282522	Image Based Spare Parts Reconstruction for Repairing Vital Infrastructure after Disasters <i>Julius Schöning and Gunther Heidemann (Osnabrück University, Germany)</i>

<b><u>Humanitarian Challenges &amp; Opportunities track (session E5) – chaired by Ed Perkins</u></b>		
10:00	1570274951	mBody Health: Digitizing Disabilities in Sierra Leone <i>Emma Hebert, Spencer McCullough, William Ferguson, Margaret Chan and Arsen Drobakha (The Pennsylvania State University, USA); Sarah Ritter (Penn State University, USA); Khanjan Mehta (Penn State, USA)</i>

10:20	1570283353	An Aerial Landmine Detection System with Dynamic Path and Explosion Mode Identification Features <i>Shaikh Anowarul Fattah, Mohammad Zakaria Haider, Dhiman Chowdhury, Mrinmoy Sarkar, Rakibul Islam Chowdhury, Md Shariful Islam, Rezaul Karim, Adibuzzaman Rahi and Celia Shahnaz (BUET, Bangladesh)</i>
10:40	1570282756	Evaluation of Non-Ionizing Radiation Emitted by FM Broadcasting and Free-To-Air TV Systems in the municipality of El Crucero, Managua <i>Julio Cruz and Gabriel Delgadillo (Universidad Nacional de Ingeniería, Nicaragua); Marvin R. Arias (National University of Engineering, Nicaragua)</i>
11:00	1570282001	History of technology and humanitarian technologies. A case study regarding the design and deployment of humanitarian technologies among rural communities in Colombia <i>Juan Arturo Camargo Uribe (Corporación Universitaria Minuto de Dios UNIMINUTO, Colombia); Luz Dary Espitia (Corporación Universitaria Minuto de Dios Uniminuto, Colombia)</i>

11:30am - 12:30pm	<b>Panel Session: Mobile/Wireless (Grand 2/3)</b>	
	<i>Panelists: Cody Finke (CalTech), Richard Fletcher (MIT D-Lab), Tim Burke (Arch Systems Inc.), Sona Shah (Neopenda), Navid Amini (UCLA), Steve Feng (UCLA)</i>	

12:30pm - 1:30pm	<b>Sponsor Speech: Maurizio Vecchione (Global Good) Lunch (Grand 2/3)</b>	
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1:30pm - 3:30pm	<b>Posters Session (Grand 1) – chaired by Suryadip Chakraborty</b>	
	1570265528	Proposal on the affordable and sustainable water supply approaches in disaster response by application of innovative water flocculant <i>Yasuhiro Soshino (Japanese Red Cross Kumamoto Hospital, Japan)</i>
	1570267777	Sports and Sports Technology as an Enabler of Global Health and Understanding <i>Terrance Malkinson (Southern Alberta Institute of Technology, Canada)</i>
	1570273269	Prototype and Model of Passive Tropical Fruit Dryer Utilizing a Flexible Transpired Solar Collector <i>Samantha Huselstein, Steven J Weinstein and Robert J Stevens (Rochester Institute of Technology, USA)</i>
	1570273345	A Personal Particulate Matter Exposure Monitor to Support Household Air Pollution Exposure and Health Studies <i>Seung-Hyun Cho and Ryan Chartier (RTI International, USA); Mukesh Dherani (The University of Liverpool, United Kingdom); Terence Tafatatha (Karonga Prevention Study, United Kingdom); Kevin Mortimer (Liverpool School of Tropical Medicine, United Kingdom)</i>
	1570274801	New aspects for organic farming practices: Controlled crop nutrition and Soilless agriculture <i>Mahesh PJ (University of Kerala &amp; TKM College of Engineering Kollam, India); Minhas Naheem and Razak Mubafar K (University of Kerala, India)</i>
	1570274938	Intelligent Control Of Showers In Solar Heating Systems and Gas To Water Economy <i>Camila Rezende and Marina R. P. Oliveira (Pontifical Catholic University of Minas Gerais, Brazil); Rubia Silva (Pontifícia Universidade Católica de Minas Gerais, Brazil); Thelma Virginia Rodrigues (Pontifical Catholic University of Minas Gerais, Brazil); Vitor Souza (IPUC Pontifícia Universidade Católica de Minas Gerais Brazil, Brazil); Walton Morais (Pontifícia Universidade Católica de Minas Gerais, Brazil)</i>
	1570280621	Internet of Things: A relief for Indian Farmers <i>Nishant Verma (Reva University &amp; Innohabit Technologies Pvt Ltd, India); Adil Usman (Indian Institute of Technology Mandi, India)</i>
	1570281700	Learning strategies in mobile and industrial robotic for people with auditory impairment <i>Tito Alberto Nuncira Gacharná (Universidad ECCI, Colombia); Alba Dalila Angel Rodriguez and Cristian Barbosa (Universidad ECCI)</i>
	1570282249	Human Tracking System Embedded in Stuffed Animal <i>Miwo Sakai and Masashi Sugano (Osaka Prefecture University, Japan)</i>
	1570283327	Using Data Assimilation method to predict People Flow in Areas of Incomplete Data Availability <i>Yongwei Xu (The University of Tokyo, Japan); Xiaowei Shao and Ryosuke Shibasaki (University of Tokyo, Japan)</i>

	1570260511	Implementing Low-Cost Energy Solution to Water Heating in Rural Dominican Republic <i>Lauren Hoffman and Truc T. Ngo (University of San Diego, USA)</i>
	1570263694	A Low-Cost Real-Time Movement Monitoring System To Evaluate Parkinson Disease Treatment <i>Farid Farahmand (Sonoma State University, USA)</i>
	1570274357	Service-Learning Outcomes in Psychology and Materials Engineering Courses <i>Jill Manapat (University of the Philippines Diliman, Philippines)</i>
	1570274773	Intelligent Irrigation <i>Damaris Sena (Pontifícia Universidade Católica de Minas Gerais, Brazil); Thelma Virginia Rodrigues (Pontifical Catholic University of Minas Gerais, Brazil)</i>
	1570281527	Long, Thin Continuum Robots for Remote Inspection Operations <i>Ian D Walker (Clemson University, USA)</i>
	1570283225	Innovative Landing Gear for Unmanned Aerial Vehicles <i>Kishore M n, Madhavaram Sai Krishna and Suresh Nagesh (PES University, India)</i>
	1570283238	A Survey to Identify Requirements for Applying Mobile Technologies towards Improving Services Access in Underserved Communities <i>Donald Ekong and Mary Mathis (Mercer University, USA)</i>
	1570283266	Engineering principles applied to Pre-University Education <i>Augusto Herrera (UNC - National University of Cordoba, Argentina)</i>
	1570283580	Assessing the Impact of Information Technology on African Societies: An Investigation into the Impact of Cell Phones on a Community of Practice of Business Women in Nigeria <i>Rose-Margaret Itua (43600 Mission Boulevard &amp; Ohlone College, USA); Karsten Lundqvist (University of Reading, United Kingdom)</i>
	1570283859	Community Development and Energy equality: Experiences from micro hydro implementation in a Tribal settlement in India <i>Ravindran Nair (Amrita Vishwa Vidyapeetham, India); Ravishankar N (Amrita University, India); Ilango Karuppasamy (Amrita School of Engineering, Amritapuri, Amrita Vishwa Vidyapeetham, Amrita University, India); Sai Shibu N B (Amrita Vishwa Vidyapeetham, India); Deepthi B and Nikhila Sanampudi (Amrita School of Engineering, Amrita Vishwa Vidyapeetham, India); Renjith Mohan (Amrita Vishwa Vidyapeetham, India)</i>
1:30pm - 3:30pm		<b>SIGHT Posters (Grand 1)</b>
	1570282469	A Wearable Diagnostic device to combat Children's Pneumonia <i>Mala Krishnamoorthi, Manoj Kumar Kalaiselvan, Vignesh Ravichandran and Manoj Kumar Baskaran (Easwari Engineering College, Chennai, India)</i>
	1570270374	Design and Implementation of a Low-cost and Reliable Wireless Mesh Network for First-Response Communications <i>Nestor Michael C. Tiglao (University of the Philippines, Philippines)</i>
	1570283232	Electrically Facilitated Solar Cargo Hauler – A Key to Easy and Safe Transportation of Goods without Dependency on the National Grid <i>Audrika Purbasha, Fabiha Khan, Mir S Redoy and A. K. M Abdul Azad (BRAC University, Bangladesh)</i>
	1570282683	Impacts of using microwave oven transformers on micropower distribution grids <i>Richard Sandoval and Patricio Mendoza-Araya (University of Chile, Chile)</i>
	1570274371	Using a Recycled Container to Setup a Community Learning Centre in Rural Cambodia – A Case Study <i>Kenneth Wai Kwan Lo, Stephen Chi Fai Chan and Grace Ngai (The Hong Kong Polytechnic University, Hong Kong)</i>
	1570283348	Educational Outdoor Mobile Robot for Trash Pickup <i>Shunmugham Pandian, Kiran Pattanashetty and Kamal Balaji (Indian Institute of Information Technology, Design &amp; Manufacturing-Kancheepuram, India)</i>
	1570274888	Case study: Technology Transfer for Resource-Constrained Farming Communities: Perspective and Future Direction <i>Pradipta Chandra, Titas Bhattacharjee and Bhaskar Bhowmick (Indian Institute of Technology Kharagpur, India); Ranjan Sen (Kapgari Inc., USA)</i>
	1570255751	Participatory smartgrid control and transactive energy management in community shared solar cogeneration systems for isolated rural villages <i>Gerro Prinsloo (Stellenbosch University, South Africa); Andrea Mammoli (New Mexico University, USA); Robert Dobson (Stellenbosch University)</i>
	1570274841	Implementation of a low cost aerial vehicle for crop analysis in emerging countries <i>Luis C Velasquez, Juan Argueta, Kevin Mazariegos (Universidad del Valle de Guatemala, Guatemala)</i>

3:30pm - 4:00pm	<b>Break</b>
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4:00pm - 6:00pm	<b>Parallel technical presentations (Northwest 1-3 and Evergreen 1-4)</b>
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<b><u>Energy track (session F1) – chaired by Pritpal Singh</u></b>		
4:00	1570283189	Solar Electric Ambulance Van Unfolding Medical Emergencies of Rural Bangladesh <i>Rahmeen Tarek, Afra Anjum, Abrar Hoque and A. K. M Abdul Azad (BRAC University, Bangladesh)</i>
4:20	1570268829	A Novel Methodology for Load Disaggregation and Demand Forecasting Based on Machine Learning Techniques in Rural Off-Grid, Isolated Systems <i>Varun Mehra (Massachusetts Institute of Technology (MIT), USA); Rajeev J Ram (Massachusetts Institute of Technology, USA); Claudio Vergara (Massachusetts Institute of Technology (MIT), USA)</i>
4:40	1570272312	Technical design of off-grid energy kiosks <i>Matt Shields and Henry Louie (Seattle University, USA); Ben Blainedavis, George Goldsmith and Daniel Nausner (Kilowatts for Humanity, USA)</i>
5:00	1570274363	Designing a Sustainable Business Plan for an Off-Grid Energy Kiosk in Chalokwa, Zambia <i>J McLean Slougher and Jenna Isakson (Seattle University &amp; KiloWatts for Humanity, USA); Kim Shields (Boeing &amp; KiloWatts for Humanity, USA); Matt Salmon (KiloWatts for Humanity, USA); Yin Ping Mak and Alexandra Keiko Schleicher (Seattle University &amp; KiloWatts for Humanity, USA); Henry Louie (Seattle University, USA)</i>
5:20	1570281968	Case study: Effects Of Loadshedding On Energy Utilisation Trends Of Various Domestic Comsumer Groups: A Case Study Of Kitwe, Zambia <i>Robert Ngoma, Abel Tambatamba and Benta Oyoo (The Copperbelt University, Zambia); Henry Louie (Seattle University, USA)</i>

<b><u>Health track (session F2) – co-chaired by Charmayne Hughes and Alan Mickelson</u></b>		
4:00	1570264408	A Hand-Cranked, affordable defibrillator for resource-poor settings <i>Sreeram Dhurjaty (Dhurjaty Electronics Consulting LLC &amp; Senior Member, IEEE, USA); Aniruddha Atre (Jeevtronics, Pvt Ltd, India)</i>
4:20	1570281506	Low-Cost Electrocardiogram Device for Preventative Health Care in Rural Populations of Developing Countries <i>JP Ertola, Silvia Figueira, Meghan Carlsen, Uma Palaniappan and Kelsey Rondini (Santa Clara University, USA)</i>
4:40	1570274933	Robot-assisted Intelligent Emergency System for Individual Elderly Independent Living <i>Jiang Lu (University of Houston Clear Lake, USA); Lei Wu (University of Houston-Clear Lake, USA); Ting Zhang (University of Houston Downtown, USA); Jiaqi Gong (University of Virginia, USA)</i>
5:00	1570280935	Demo: A Smartphone-Based 96-Well Plate Reader for Cost-effective Point-of-Care ELISA Test Quantification <i>Brandon Berg, Bingen Cortazar, Derek Tseng, Haydar Ozkan, Steve Feng, Qingshan Wei, Raymond Yan Lok Chan, Jordi Burbano and Qamar Farooqui (University of California, Los Angeles, USA); Michael Lewinski (Roche Molecular Systems, Inc., USA); Dino Di Carlo, Omai Garner and Aydogan Ozcan (University of California, Los Angeles, USA)</i>

<b><u>Water and Sanitation track (session F3) – chaired by John Prohodsky</u></b>		
4:00	1570273883	Affordable, Rapid, Electrochemical Nitrate Detection towards Point-of-Use Water Quality Monitoring <i>Lillian Tatka and Unyoung Kim (Santa Clara University, USA)</i>

4:20	1570274183	Quantification of a Latex Agglutination Assay for Bacterial Pathogen Detection in a Low-Cost Capillary-Driven Fluidic Platform <i>On Shun Pak, Kyle Pietrzyk, Scott Fukuoka, Andy Ly, Andres Maldonado-Liu and Unyoung Kim (Santa Clara University, USA)</i>
4:40	1570282841	An Acoustic Based Approach for Mitigating Sewer System Overflows <i>Muhammad Safeer Khan (Arkansas Tech University)</i>
5:00	1570283044	Performance of a Vertical Subsurface Flow Constructed Wetland in Treating Biomethanation Effluent <i>Stephanie Wietlisbach (Swiss Federal Institute of Technology, Zurich, Switzerland); Nikhil Kothurkar (Amrita Vishwa Vidyapeetham, Amrita University, India); Kaavya Ram (Amrita School of Engineering, Amrita University, India); Revathy Nair and Sreedhar Harigovind (Amrita Vishwa Vidyapeetham, Amrita University, India)</i>
5:20	1570283263	Plastic Waste Cycle Biomimicry of Natural Nutrient Cycle – an Integrated Technology Case Study <i>Keegan Clarke (St Alban's College &amp; Sanctus Consulting, South Africa); Christiaan Mouton (St Alban's College, South Africa)</i>

**Education track (session F4) – chaired by Adil Usman**

4:00	1570274840	Didactronic: a low-cost and portable didactic lab for electronics <i>Bernardo Cunha and Priscila Dutra (Pontificia Universidade Católica de Minas Gerais, Brazil); Selmar Mendes (PUC Minas - Pontificia Universidade Catolica de Minas Gerais, Brazil); Thelma Virginia Rodrigues and Carlos Augusto Martins (Pontifical Catholic University of Minas Gerais, Brazil); Lorena Nunes and Felipe Machado (Pontificia Universidade Católica de Minas Gerais, Brazil)</i>
4:20	1570274961	TextTETEA - An SMS-based Education Service <i>Michael Neumann (Santa Clara University, USA); Keegan Wincewicz (TETEA, USA)</i>
4:40	1570282351	Teaching Bilingual Workshops on Data Mining in Peru <i>Mila Kwiatkowska (Thompson Rivers University, Canada); Alberto Un Jan (Universidad Norbert Wiener, Peru)</i>
5:00	1570283348	Educational Outdoor Mobile Robot for Trash Pickup <i>Shunmugham Pandian, Kiran Pattanashetty and Kamal Balaji (Indian Institute of Information Technology, Design &amp; Manufacturing-Kancheepuram, India)</i>
5:20	1570282973	Case study: Technology Transfer for Resource-Constrained Farming Communities: Perspective and Future Direction <i>Pradipta Chandra, Titas Bhattacharjee and Bhaskar Bhowmick (Indian Institute of Technology Kharagpur, India); Ranjan Sen (Kaggari Inc., USA)</i>

**Deployment track (session F5) – co-chaired by Jackie Stenson and Roger Johnson**

4:00	1570285573	Autonomous OCR Dictating System for Blind People <i>Christos Liambas and Miltiadis Saratzidis (Aristotle University of Thessaloniki, Greece)</i>
4:20	1570282539	A Look at Private Sector - NGO Partnerships in the Nexus of Water-Energy-Food-Climate Change <i>Yesim Sireli (UNC Charlotte, USA)</i>
4:40-6:00	1570280209	Panel: Intellectual Property, Innovations and Global Food Security: Feeding the 9 Billion in 2050 <i>Jane Payumo and Ruth Mbabazi (Michigan State University, USA); Katy Graef (BIO Ventures for Global Health, USA); Frank Shotkoski (Cornell University, USA); Jennifer Dent (BIO Ventures for Global Health, USA); Sita Pappu (Washington State University, USA); Karim Maredia (Michigan State University, USA)</i>

6:00pm – 6:30pm	<b>Break</b>
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6:30pm - 8:00pm	<b>Dinner (Grand 2/3) Keynote Speaker: Dave Cook, Engineers Without Borders-USA 2016 President</b>
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<b>Time</b>	<b>Sunday, October 16, 2016</b>
7:00am - 8:00am	<b>Registration Open (Grand Foyer)</b>

8:00am - 10:00am	<b>Parallel technical presentations (Northwest 1-2 and Evergreen 1-4)</b>
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<b><u>Energy track (session G1) – chaired by Nathan Johnson</u></b>		
8:00	1570274785	Optimization of a Solar-hybrid System for the Village of El Rescate, El Salvador <i>Carlos Guadron (Villanova University, USA)</i>
8:20	1570274612	Assessment of Building Integrated Photovoltaics and other Renewable Energy Technologies for the Residential Sector in Egypt <i>Pritpal Singh and Monica Kares (Villanova University, USA)</i>
8:40	1570285983	Expanding energy access through the improvement of the Regulatory Framework for Renewable Distributed Generation in Nicaragua <i>Maria Moncada (National University of Engineering, Nicaragua)</i>
9:00	1570290316	Reducing criminality and saving energy <i>Thiago Matheus Martins de Moraes and Lucas de Paula Santos Petri (Univ Estadual Paulista (UNESP), Brazil)</i>
9:20	1570282271	Case study: The Effects of Load-shedding on Residential Electricity Consumption: A Case Study of Kitwe, Zambia <i>David Mulongoti (Copperbelt University, Zambia); George Mugala and Buchizya Kumwenda (The Copperbelt University, Zambia); Henry Louie (Seattle University, USA)</i>

<b><u>Health track (session G2) – co-chaired by Charmayne Hughes and Alan Mickelson</u></b>		
8:00	1570267830	A SDD and PCM Solution for Vaccine Storage and Outreach <i>Junshan (Michael) Li, Michael Friend, Andrew Miller and Shannon Stone (Intellectual Ventures Laboratory, USA)</i>
8:20	1570283383	Development of Smart Phone Tools for Printed Diagnostics: Challenges and Solutions <i>Richard Fletcher and Niccolo Pignatelli (MIT, USA); Suparna Ghosh-Jerath (PHFI, India); Adrian Jimenez-Galindo (MIT, USA)</i>
8:40	1570274661	Panel: Essential and Emerging Technology in Integrated HIV and Health Service Delivery in Developing Countries <i>Pamela McCualey and Sylvia DiPaulo (University of Central Florida, USA)</i>

<b><u>Education track (session G3) – chaired by Adil Usman</u></b>		
8:00	1570273240	Community Engagement Assessment of Global Humanitarian-based Projects <i>Randy Lewis, Cameron Quist, Terri Bateman and Carol Ward (Brigham Young University, USA)</i>
8:20	1570274371	Using a Recycled Container to Setup a Community Learning Centre in Rural Cambodia - A Case Study <i>Kenneth Wai Kwan Lo, Stephen Chi Fai Chan and Grace Ngai (The Hong Kong Polytechnic University, Hong Kong)</i>
8:40	1570271805	Case study: Initiating and Establishing a Humanitarian Technology and Engineering Mobile Outreach Centre by IEEE UGANDA SIGHT <i>Herbert Lwanga (IEEE, Uganda)</i>
9:00	1570274906	Panel: Comprehensive Model for Fostering Humanitarian Engineering Education Using Social Pedagogy Principles and Practice <i>Mohammed Baaoum (King Fahd University of Petroleum and Minerals (KFUPM), Saudi Arabia)</i>

<b><i>Agriculture track (session G4) – chaired by Khanjan Mehta</i></b>		
8:00	1570274707	A Sustainable Strategy of Farming in Radioactive Contaminated Farmland: A Case Study in Fukushima <i>Eric Z. Ma (Fuller Theological Seminary, USA); Mansun Chan (The University of Science and Technology, Hong Kong)</i>
8:20	1570272867	Development and Evaluation of Solar Powered Sprayer With Multi-Purpose Applications <i>Yallappa Dengeru, Vijayakumar Palled, M Veerangouda, Sushilendra R (University of Agricultural Science, Raichur, India)</i>
8:40	1570283343	Small-Scale Solar Pumping Systems in India: Analysis of Three Implementation Models <i>Jonars Spielberg (Massachusetts Institute of Technology, USA); Amit Gandhi (Massachusetts Institute of Technology, USA); Sara Pesek (Massachusetts Institute of Technology, USA); Eadaoin Iiten (Technology Exchange Lab, USA); Vandana Pandya (Massachusetts Institute of Technology, USA); Jennifer Green (Massachusetts Institute of Technology, USA)</i>
9:00	1570274763	A Framework for Performance Evaluation of Plucking Activity in Tea <i>Somya Sharma (Innovation Labs, Tata Consultancy Services, Mumbai, India); Sanat Sarangi (Tata Consultancy Services, India); Srinivasu Pappula (Tata Consultancy Services, India)</i>
9:20	1570274841	Implementation of a low cost aerial vehicle for crop analysis in emerging countries <i>Luis C Velasquez, Juan Argueta, Kevin Mazariegos (Universidad del Valle de Guatemala, Guatemala)</i>
9:40	1570274908	Densified Mango Residues as Biofuel from Low-Resource Agricultural Processing <i>Chris Rumble (University of Wyoming, USA); Siri Maley (Penn State, USA); Khanjan Mehta (Penn State, USA)</i>

<b><i>Deployment track (session G5) – chaired by Roger Johnson</i></b>		
8:00	1570279750	Making Telecommunications Services Accessible to People with Severe Communication Disabilities <i>Rosanna Yuen-Yan Chan, Junnan Ding and Lam Wang Kong (The Chinese University of Hong Kong, Hong Kong); Gladys Yan (SAHK, Hong Kong); Xue Bai (The Chinese University of Hong Kong, Hong Kong); Xiaojuan Ma (Hong Kong University of Science and Technology, P.R. China); Soby So (SAHK, Hong Kong); Xiangjie Wang and Jessica Chow (The Chinese University of Hong Kong, Hong Kong)</i>
8:20 – 9:10	<i>Featured Deployment Workshop</i>	Workshop: Intellectual Property Primer for the Technology Humanitarian <i>Ronnie Stern, Rimon Law, Seattle, WA</i>
9:10 – 10:00	<i>Featured Deployment Interactive Session</i>	Interactive session: Taming the Carbon Monster with a fee and dividend approach <i>Kambiz Rahimi, Citizens Climate Lobby</i>

10:00am - 10:30am	<b><i>Break</i></b>
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10:30am - 11:30am	<b>Closing Comments -- Dick Wilkins (GHTC 2017 Chair) (Grand 2/3) Conference Reflection Session w/ Track Chairs - Jim Miller</b>
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1:00pm - 2:00pm	<b>GHTC Steering Committee Debrief Meeting (Room TBD)</b>
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