

IEEE GHTC 2013 - Accepted Papers (Oral Presentation)

Day & Room	Track	Time	Paper ID	Paper Title	Author Names
October 21, 2013 Monday (Riveria & Granada)	Session A1: Energy I Track Chair: Kendra Sharp	10:30am	11	On-Board Solar Power for Small-Scale Distant-water Fishing Vessels	Satish Babu, Vincent Jain
		10:45am	39	Low Cost Solar Thermal Energy Generation for Developing Economies	Darick LaSelle, Robert Liechty, Nathan Clark, Hassan Alzamzam, Jasmin Dzabic, Robert Foster
		11:00am	42	A small-hydro plant model for feasibility analysis of electrification projects in rural Tanzania	Stefano Mandelli, Emanuela Colombo, Bonaventure Saanane, Andrea Redondi, Francesco Bernardi, Prosper Mgaya, Johnstone Malisa
		11:15am	46	Biogas – An Alternative Household Cooking Technique for Zambia	Likonge Makai, Marta Molinas
		11:30am	56	Design of a Hybrid Renewable Energy System for a Northern Ontario Community	Marielle Magtibay, Diana Wong
		11:45am	57	A Modular Simulation Platform for testing Hybrid DC/AC Future Grid Solutions for Remote Areas	Eleder Araneta, Marta Molinas, Elisabetta Tedeschi
October 21, 2013 Monday (Riveria & Granada)	Session B1: Energy II Track Chair: Nathan Johnson	1:30pm	72	An Integrated Approach to Energy for Development - Case Study of the Malawi Renewable Energy Acceleration Programme	Damien Frame, Peter Dauenhauer, Kelvin Tembo, Catherine Currie, Graham Ault
		1:45pm	79	Low Cost Lumen Testing Procedure In Bangladesh Perspective	Akm Azad, Sabbir Khan, Rafiur Rahman, Farah Shabnam
		2:00pm	83	Prevention of Power Blackout and Power Theft using IED	Amarnath R, Kalaivani N, Priyanka V
		2:15pm	87	Unified Green Village Electricity Project Concept; a Suitable Model for Reliable Renewable Energy Deployment in Nigeria	Ifeanyi Orajaka
		2:30pm	92	Solar Park in Gaza City: A Proposed Social Business to bring Renewable Energy Knowledge in the Conflict Region	Yaser Qudaih
		2:45pm	93	COSMGrid: Configurable, Off-the-shelf Micro Grid	Jonathan Fürst, Nik Gawinowski, Sebastian Büttrich, Philippe Bonnet
		3:00pm	118	Utilizing Microsolar Charging Systems to Combat the Electricity-Poverty Nexus	Naman Trivedi, Thomas Larson
October 21, 2013 Monday (Riveria & Granada)	Session C1: Energy III Track Chair: Nathan Johnson	4:00pm	144	The CSI Story: IEEE PES Community Solutions Initiative	Raymond Larsen, Robin Podmore, Michelle Lacourciere, Patrick Ryan, Derek Welbourn, Daniel Wessner
		4:15pm	151	Customizable Timing Control Device for Natural Gas Home Appliances to Save Natural Gas	Assad Iqbal, Muhammad Shamoan Khan, Sangeen Khan, Sajjad Hussain Shah
		4:30pm	155	A Low Power Control System Optimized for Solar Thermal Power Generation	Darick LaSelle
		4:45pm	159	Sustainable Solar Electrification for Rural Communities in Cameroon	Michael Wilson , Jude Numfor
		5:00pm	161	Microgrid Test Bench for Small-Scale Renewable Microsources	Michael Rios, Giri Venkataramanan
		5:15pm	164	The Economic Challenge of Rural Electrification: Community Solutions Initiative in Africa	Seth Myers
		5:30pm	166	South Sudan Rural Electrification Project	Ronald Moulton, Mou Riiny

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October 21, 2013 Monday (Castillian)	Session A2: Education I Track Chair: Charles Herget	10:30am	3	An EPICS-in-IEEE initiative: learners of St Alban's College and students of the University of Pretoria seek earth observation solutions through air-quality microsensing	Saurabh Sinha, Chris Mouton, Phumudzo Bebele
		10:45am	8	An electronic solution to automate the process of Grade-1 Braille training	Piotr Osuch, Saurabh Sinha
		11:00am	10	Engaging Diverse Learners through New Technologies	Carol Shepherd, Nadelon Alpert
		11:15am	62	Developing Engineering Programmes specialising in renewable energy for Environmental Sustainability	Alan Rocha
		11:30am	81	The IEEE Actionable Data Book: A Platform For Inclusive Education	Edilson Arenas, Tyde Richards, Avron Barr
		11:45am	109	Enhancing Student Engagement in the Online Classroom	Enid Acosta-Tello
October 21, 2013 Monday (Castillian)	Session B2.1: Education II Track Chair: Ed Perkins	1:30pm	117	GreenEduComp: Low Cost Green Computing System for Education in Rural India A Scheme for Sustainable Development Through Education	Mukundhan Srinivasan, Anand B, Vineeth Vijayaraghavan, Venus Antony A. J.
		1:45pm	174	Motivating Interest in Electrical Engineering Through Altruism at the Middle School Level	Thomas McKay, Carter Milhous
		2:00pm			
	Session B2.2: Disaster I Track Chair: Mike Andrews	2:30pm	33	Determine Additional Locations of Tsunami Escape Building in Meuraxa Banda Aceh, Indonesia	Hendri Yuzal
		2:45pm	53	Cognitive-Cultural Simulation of Local and Host Government Perceptions In International Emergencies	Daniel Olsher
		3:00pm	94	System of People Search under Avalanches in Mines	Igor Shirokov
		3:15pm	95	Cognitive/AI Peacekeeping Decision Support Models	Daniel Olsher
	October 21, 2013 Monday (Castillian)	Session C2: Disaster II Track Chair: Mike Andrews	4:00pm		The Serval Mesh: A Platform for Resilient Communications in Disaster & Crisis (Invited Paper from Serval Project , Humanity United)
4:15pm			99	Family Information Sharing System based on a Judgment of Emergency	Yuka Hasegawa, Masato Oguchi
4:30pm			102	Radio Signal-based Measurements for Localized Heavy Rain Detection using Smartphones	Jane Louie Zamora, Shigeru Kashihara, Suguru Yamaguchi
4:45pm			126	WSN-SA: Design Foundations for Situational Awareness Systems Based on Sensor Networks	Agnelo Silva, Mingyan Liu, Mahta Moghaddam
5:00pm Online			154	CrowdHelp: a Crowdsourcing Application for Improving Disaster Management	Liliya Besaleva, Alfred Weaver
5:15pm Online			59	Experimental Analysis of Effects of Installation Alignment and Solar Insolation on Power Generation by Solar Panels	Moein Jazayeri, Sener Uysal, Kian Jazayeri

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October 22, 2013 Tuesday (Riveria & Granada)	Session D1: Health I Track Chair: Lew Terman	10:30am		Feature Speaker: Maurizio Vecchione, VP for Global Good at Intellectual Ventures	
		11:00am	49	Digitization of Health Records in Rural Villages	Rajan Vaish, Sascha Ishikawa, Jing Liu, Stephanie Berkey, Philip Strong, James Davis
		11:15am	9	User Interface Design of a Digital Sphygmomanometer for Rural India	Prabir Mukhopadhyay, IIITDM Jaba
		11:30am	26	Non-invasive Microwave Breast Cancer Detection - A Comparison Study	Arezoo Modiri, Kamran Kiasaleh
		11:45am	27	Experimental Results for a Novel Microwave Radiator Structure Targeting Non-invasive Breast Cancer Detection	Arezoo Modiri, Kamran Kiasaleh
		12:00pm	48	Senior Design Project for Humanitarian Purpose: Sign Language Device for Children with Hearing Disability	Mouna Nakkar
		12:15pm	50	Field-Portable Lensfree Holographic Color Microscope for Telemedicine Applications	Alon Greenbaum, Najva Akbari, Alborz Feizi, Aydogan Ozcan
October 22, 2013 Tuesday (Riveria & Granada)	Session F1: Health II Track Chair: Soon Wan	1:30pm	65	On the Performance of GRASP and Dynamic Programming for the Blood Assignment Problem	Kevin Igwe, Micheal Olusanya, Aderemi Adewumi
		1:45pm	74	Augmented Wastage Remover	Saronroy Albert, Durairasan A
		2:00pm	82	Challenges and Successes in Making Health Care More Accessible To Rural Communities In Waslala, Nicaragua Using Low-Cost Telecommunications	Pritpal Singh, Ruth McDermott-Levy, Elizabeth Keech, James Klingler, Maria Moncada
		2:15pm	96	Affordable Dermoscope for Resource-Poor Settings	Jenna Johnstone, Brian Bacik, Shannon Burke, Rachel Dzombak, Khanjan Mehta, Peter Butler
		2:30pm	100	Modeling Social Media Network For Effective Healthcare In Emerging Economies' Semi-Urban/Urban Context	Amrita Amrita, Sreekanth Vettikkadu, Dhruves Biswas
		2:45pm Online	101	A sustainable approach to municipal solid waste management in Southern Nigeria	Ye-Obong Udoakah, Uduak Akpan
		3:00pm	106	Modeling Malnutrition Toddlers In East Java Province Using Geographically Weighted Regression Approach	Rahandini Lestari, Sutikno Sutikno
October 22, 2013 Tuesday (Riveria & Granada)	Session G1.1: Health III Track Chair: Ed Perkins	4:00pm	148	Challenges Facing Medical Data Digitization in Low-Resource Contexts	Alex Shovlin, Mike Ghen, Khanjan Mehta, Peter Simpson
		4:15pm	153	Cloud Based Health Care Delivery Model For Affordable and Accessible Health Services in Rural/Semi Urban India	Partha Pandey, Sharad Kumar, Dhruves Biswas
		4:30pm	157	Sanitation Quality Index and its Relation With Diarrheal Prevalence in Pallikaranai, Southern Chennai, India	Gowri Velu, Lavanya Vaidhyathan
		4:45pm	114	LARN: Indoor Navigaion for Elderly and Physically Challenged	Rajesh Megalingam, Ananthkrishnan Ponnileth Rajendran
	Session G1.2: Track Chair: Ed Perkins	5:00pm		Embedded Wireless-enabled Low Cost Plastic Sorting System for efficient Waste Management (Invited Paper from GHTC-SAS 2013)	L. Madan Kumar, K. Shankar, Karan H. Shah, T. Chinnu, V. Venkataraman
	5:15pm		Computerized Assessment of Phonological Processes in Malayalam (Invited Paper from GHTC-SAS 2013)	Sindhusa Chandran, N. Sreedevi, Merin John	

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October 22, 2013 Tuesday (Castillian)	Session D2: Water & Agriculture I Track Chair: Jay Pearlman	10:30am	15	Gutter Design and Selection for Roof Rainwater Catchment Systems	Jillian Zankowski, Yixin Sun, Chiyan Poon, Emily Passauer, Abdalla Nassar, Khanjan Mehta
		10:45am	16	Beneficial Microbes “Jeevatu” for Biodegradable Waste Management and Plant Disease Control	Bharat Poudyal, Pratik Poudel
		11:00am	25	Simple Algorithm for Chlorine Concentration Control	David Peter
		11:15am	34	Effect of contaminated filtration sand on performance of household biosand filters	Shannon Bartelt-Hunt, Caleb White, Jodi Sangster, Stacey Joy, Matt Pirog, Elizabeth Jones
		11:30am	55	Powering & Watering Agriculture: Application of Energy-Water Nexus Planning	Amro Farid, William Lubega
		11:45am	58	Functional Water Sources That Don't Work: A case for household self supply through the Mzuzu Smart Centre, Malawi	Rochelle Holm, Elijah Wanda, James McGill
		12:00pm	98	The Feasibility of Rice Bags as a Low-Cost and Locally-Available Alternative to Greenhouse Glazing	Shayne Bement, Abdalla Nassar, Khanjan Mehta
October 22, 2013 Tuesday (Castillian)	Session F2: Water & Agriculture II Track Chair: Nancy Searby	1:30pm	103	Chataka: An Open Data Initiative for the Water Sector	Santosh K, Subrat Rout
		1:45pm	121	Mobile Sensing for Agriculture Activities Detection	Somya Sharma, Jabal Raval, Bhushan Jagyasi
		2:00pm	123	A VoIP Enabled Cooperative Network for Agricultural Commerce in Amazon Peru	David Espinoza, Alan Mickelson, Jared Leventhal, Christie Ritter, River Quispe, Leopoldo Linan
		2:15pm	124	A Review of Direct and Indirect Implications of Laser Land Leveling as Agriculture Resource Conservation Technology in Punjab Province of Pakistan	Leena Maqsood, Tariq Mahmood Khalil
		2:30pm	170	A Holistic Optimization Framework for Improving Ceramic Pot Filter Performance	Amelia Servi, Peter Kang, Susan Murcott, Daniel Frey
		2:45pm	172	Feasibility of Rain Water Harvesting on Scott Laboratory	Deep Shah, Purav Patel , Patrick Kudo, William Herold
October 22, 2013 Tuesday (Castillian)	Session G2: Connectivity & Communication Track Chair: Adil Usman	4:00pm	13	A Crowd-sourced Approach for Wild Elephant Tracking	Satish Babu, Tarsh Thekaekara
		4:15pm	51	A Survey on Wireless Mesh Network Applications in Rural Areas and Emerging Countries	Christian Köbel, Walter Baluja Garcia, Joachim Habermann
		4:30pm	70	Remote Monitoring of Off-Grid Renewable Energy: Case Studies in rural Malawi, Zambia, and Gambia	Peter Dauenhauer, Damien Frame, Scott Strachan, Michael Dolan, Million Mafuta, Daniel Chakraverty, Jeff Henrikson
		4:45pm	108	Remote Health Monitoring through an Integration of Wireless Sensor Networks, Mobile Phones & Cloud Computing Technologies	Sajjad Hussain Shah, Assad Iqbal
		5:00pm	133	Technologically Enabling Resource-constrained Enterprises in Developing Nations Through The Implementation of E-Commerce on-Demand Service Portals for a Grid Utility Computing Platform	Babafemi Odusote

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Day & Room	Track	Time	Paper ID	Paper Title	Author Names
October 23, 2013 Wednesday (Riveria & Granada)	Session H1: Humanitarian Challenges & Opportunities I Track Chair: Jery Althaf	10:30am		Feature Speaker: Pamela McCauley Bush, Professor, University of Central Florida <i>"Occupational Ergonomics and Safety in Developing Countries: A Humanitarian Imperative"</i>	
		11:00am	21	Technologies, Indigenous Cultural Heritage and Community Capacity Building	Carolyn Woodley, Stewart Taylor, Sean Fagan, Sue Marsshall
		11:15am	22	Key Challenges of Product Development for Humanitarian Markets	Ana Laura Santos, Brita Nielsen
		11:30am	24	Research and Development in Humanitarian Engineering	Gary Conkol
		11:45am	35	Sustainable Community Development- Westwood Solar Furnace Project	Aaron Brown, Elisa Teipel, Kaitlin Litchfield, Leigh Gilmore
		12:00pm	64	Creating Opportunities for Young Humanitarian Entrepreneurs to Use Technology to Change the World and Reduce Poverty in Developing Communities	Gim Soon Wan, Darrel Chong
		12:15pm	80	Big Data and Humanitarian Supply Networks - Can Big Data give Voice to the Voiceless?	Asmat Monaghan, Mark Lycett
October 23, 2013 Wednesday (Riveria & Granada)	Session J1: Humanitarian Challenges & Opportunities II Track Chair: Jery Althaf	1:30pm	107	PulaCloud: Human Computation for Economic Development	Andrew Schriener, Daniel Oerther
		1:45pm	128	Design and Implementation of a Test Rig for Disruption of Unexploded Ordnance	Mark Jeunnette, Gim Song Soh
		2:00pm	134	Entrepreneurship as an IEEE Workforce Development Theme	Tinus Stander, Saurabh Sinha
		2:15pm	152	Creating Shared Value by aligning Business and Social Objectives through the Application of Technology	Suyash Chopra, Narayana Mandaleeka
		2:30pm	165	StreetConnect – Apps for Homeless People	Silvia Figueira, Natalie Linnell
		2:45pm	178	Humanitarian Opportunities In The Network Age	Maryam Heidaripour, Vahid Choopankareh, Jamshid Emami

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October 23, 2013 Wednesday (Castillian)	Session H2: Humanitarian Applications I Track Chair: Nancy Searby	10:30am			
		11:00am	14	The Praxis of Systems Thinking for Concurrent Design Space and Business Strategy Exploration	Rachel Dzombak, Chanakya Mehta, Khanjan Mehta, Sven Bilen
		11:15am	66	Crowd-sourcing urban air-quality in developing countries through open source technologies	Justin Henriques, Brian Bojarski, Kyle Byrd, Melissa Von Wald
		11:30am	88	Rehabilitating Former Landfill Sites: A Case Study in Habitat Restoration	Peter Ash, Anju Bist, Dan Sullivan, Smitha Chandran, Nikhil Kothurkar
		12:00pm	110	Synthetic Aperture Radars for Humanitarian Purposes: Products and Opportunities	Giuseppe Ruello, Donato Amitrano, Gerardo Di Martino, Antonio Iodice, Daniele Riccio, Maria Nicolina Papa, Fabio Ciervo, Youssouf Koussoube
		12:15pm	122	The Case for Interdisciplinarity: Lessons from the Field	Revi Sterling, John Bennett
October 23, 2013 Wednesday (Castillian)	Session J2: Humanitarian Applications II Track Chair: Adil Usman	1:30pm	139	Municipal Solid Waste Management In Bangalore And The Concept Of Mini Biogas Plant In Urban Localities	Suchitra Ramesh, Asif Usman, Adil Usman, Divakar BP
		1:45pm	177	Using Earth observations to enhance water resources decision-making and disaster assessment processes in the United States and the developing world	Christine Lee, Sarah Hemmings, Nancy Searby
		2:00pm	179	Sub-micrometer salt aerosol production: Marine cloud brightening	Armand Neukermans
		2:15pm			
		2:30pm			
		2:45pm			