

NASA/C3P- 2009 INTERNATIONAL WORKSHOP ON ENVIRONMENT AND ALTERNATIVE ENERGY
“Global Collaboration in Environmental and Alternative Energy Strategies”

GE Global Research- Garching/Munich, Germany

FINAL AGENDA – Revised (11.10.09)

Time		Day 1 - Auditorium	
Tuesday, November 10			
7:45 am – 5:00 pm	Registration/ Information Desk		
9:00 am – 10:30 am	<p>Welcome and Opening Remarks</p> <p>Session Lead: General P.C. Branco C3P – Portugal</p>	<ul style="list-style-type: none"> – Centro Para Prevenção da Poluição Welcome – General P.C. Branco, General Director, C3P – Portugal – NASA Headquarters Welcome – Olga Dominguez, Assistant Administrator for the Office of Infrastructure, NASA – HQ – Public Private Partnerships – Conrad Tribble, Consul General, Consulate General of the United States - Munich, Germany – GE Global Research – Europe – Welcome – Dr. Carlos Haertel, Director of GE Global Research – Europe, GE – Post 2012 Global Climate Policy: A European Perspective – Nuno Lacasta/ Pedro Barata, Portugal's Climate Change Commission Executive Director/Policy Advisor, Ministry of Environment 	
10:30 am – 10:45 am	Break / Beverages		
10:45 am – 1:00 pm	<p>Keynote Speakers</p> <p>Session Lead: General P.C. Branco C3P – Portugal</p>	<ol style="list-style-type: none"> 1. NASA Cooperation with Europe – Bill Barry, NASA European Representative, NASA – US Embassy Paris 2. European Space Agency View of Sustainable Development – Nathalie Meusy, Head of Coordination Office on Sustainable Development Directorate of Resources Management , ESA – HQ 3. Material Issues in Manufacturing Electronics – Klaus Hieronymi, Chairman of the Environmental Board Hewlett-Packard Europe, Middle East and Africa, HP 	
1:00 pm – 2:00 pm	Lunch (may be purchased at the GE canteen/cafeteria)		
2:00 pm – 3:05 pm	<p>General Technical Sessions</p> <p>Session Lead: James Leatherwood NASA – HQ</p>	<ol style="list-style-type: none"> 4. NASA's Vision of Sustainability – James Leatherwood, Director, Environmental Management Division, NASA – HQ 5. Role of Innovation in Sustainable Development – Eduardo Dias Lopes, Director of Research and Development Division, ISQ – HQ Portugal 	
3:05 pm – 3:20 pm	Break / Beverages		
3:20 pm – 4:00 pm	<p>General Technical Sessions</p> <p>Session Lead: James Leatherwood NASA – HQ</p>	<ol style="list-style-type: none"> 6. UCSD Campus: A Test Bed for Sustainability – Frieder Seible, Dean of Engineering, University California San Diego 7. Shaping Students for a Sustainable Future – Prof. Dr.-Ing. Gerd Becker, Munich University of Applied Sciences 	
4:00 pm – 5:30 pm	<p>University of California, San Diego Student Presentations</p>	<ul style="list-style-type: none"> – Effects of Solar Photovoltaic Panels on Building Heat – Micro-Optic Solar Concentrators – Solar Intermittency at Four Distributed Sites in Colorado – Enhanced Waste Heat - Energy Conversion Through Nanostructured Thermoelectrics – Accuracy of Solar Irradiances Derived from GOES Satellite Data in the Coastal: Regions of Southern California – Computational Fluid-Structure Interaction with Application to Wind Turbines 	

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Time	Day 2			
	Wednesday, November 11			
7:45 am – 6:00 pm	Registration/ Information Desk			
	Track A - Maxwell Room		Track B - Auditorium	
	Technical Sessions		Technical Sessions	
9:00 am – 10:10 am	<p>A.1. Materials Management and Substitution</p> <p>Session Lead: Lt. W. Casey Matthews USAFSPC</p>	<p>1. Opening Remarks & Speaker Intro – Lt. Casey Matthews, Coatings Technology Integration Office- Project Engineer, USAFSPC</p> <p>2. Key Players of corrosion Control in the USAF – Lt. Casey Matthews, Coatings Technology Integration Office- Project Engineer, USAFSPC</p> <p>3. Tech Overview: Metallization – Lt. Casey Matthews, Coatings Technology Integration Office- Project Engineer, USAFSPC</p>	<p>B.1. Renewable and Alternative Energy Systems</p> <p>Session Lead: Professor Oliver Mayer GE Global Research- Europe, GE</p>	<p>1. Opening Remarks & Speaker Intro – Professor Oliver Mayer, Senior Scientist , GE Global Research Europe</p> <p>2. Energy Portfolio Evolution...from Generation to Distribution at GE – Michael Idelchik, Vice President - Advanced Technology Programs, GE Global Research Europe</p> <p>3. Battery and Fuel Cell Driven Electric Vehicles – Prof. Dr.-Ing. Ulrich Wagner, Technical University of Munich</p> <p>4. Transforming Biogas from Methane to Methanol for use in Fuel Cell – Prof. Dr. Loroch, Beuth Institute Berlin and Dipl. Ing. Orloff, TU Cottbus</p>
10:10 am – 10:25 am	Break			
10:25 am – 11:25 am	<p>A.1. Materials Management and Substitution</p> <p>Session Lead: Lt. W. Casey Matthews USAFSPC</p>	<p>4. Chrome Free Coatings for Aerospace – Matt Rothgeb, Senior Engineer, ITB</p> <p>5. Lead-Free Electronics Issues & Concerns – Kurt Kessel, Senior Engineer, ITB</p> <p>6. Alternative to Nitric Acid Passivation – David Yasensky, Materials Engineer, USA</p>	<p>B.1. Renewable and Alternative Energy Systems</p> <p>Session Lead: Professor Oliver Mayer GE Global Research- Europe, GE</p>	<p>5. Status and Technical Challenges of Compressed Air Energy Storage Technology – Matthias Finkenrath, Dr. GE Global Research Europe</p> <p>6. European Award Building-Integrated Solar Technology 2008 – Prof. Dr.-Ing. Gerd Becker, Munich University of Applied Sciences</p> <p>7. Towards a Cost Effective Green Energy Production – Eduardo Dias Lopes, Director of Research and Development Division, ISQ - HQ Portugal</p> <p>8. Organic Rankine Cycles / Waste Heat Recovery – Dr. Thomas Frey, Research Scientist, GE Global Research Europe</p>
11:25 am – 12:45 pm	Breakout Session		Breakout Session	
1:00 pm – 2:00 pm	Lunch (may be purchased at the GE canteen/cafeteria)			
2:00 pm – 3:10 pm			<p>B.2. WEEE and E-Waste Recovery</p> <p>Session Lead: Margarida Pinto ISQ – HQ Portugal</p>	<p>1. Opening Remarks & Speaker Intro – Margarida Pinto, Director Assistant/Project Manager, ISQ – HQ Portugal</p> <p>2. ELECTROVALUE Project: Towards E-Waste Recovery – Margarida Pinto, Director Assistant/Project Manager, ISQ – HQ Portugal</p> <p>3. Assessment of WEEE Reuse in Electrovalue: An LCA Approach – Eduardo Silva, ISQ - HQ Portugal</p> <p>4. E-waste Management: Market Impact from a Manager Perspective – Mónica Luízio, Amb3e - Portugal</p> <p>5. Domestic E-Waste in Africa: Recycling for a Profit? – Klaus Hieronymi, Chairman of the Environmental Board Hewlett-Packard Europe, Mid. East & Africa, HP</p>
3:10 pm – 3:45 pm			Breakout Session	
3:45 pm – 4:00 pm	Wrap – Up			
4:00 pm – 7:00 pm	Meet & Greet + Student Poster Session Initiation and Discussion			
	<ul style="list-style-type: none"> - CDTM: Applied Research and Education at the Intersection of Technology and Management, TUM/CDTM - Pilot Project: Potential of ICT in the Energy Sector, TUM/CDTM - Examples of Prototyping Projects in Emerging Technologies, TUM/CDTM 	<ul style="list-style-type: none"> - Institute for Energy Systems: Research and Resources, TUM - Alternative fuels for Biomass Gasification, TUM - ORC for Waste Heat Recovery: Stationary and Mobile Applications, TUM - Transversal Flux Machine and Polymere Motor, Orloff Technologie GmbH 		

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Time	Day 3			
	Thursday, November 12			
7:45 am – 3:30 pm	Registration/ Information Desk			
	Track A - Maxwell Room		Track B - Auditorium	
	Technical Sessions		Technical Sessions	
9:00 am – 10:10 am	<p>A.3. Remediation and Cleanup</p> <p>Session Lead: Jackie Quinn NASA</p>	<ol style="list-style-type: none"> Opening Remarks & Speaker Intro – Jackie Quinn, Environmental Engineer, NASA In-situ Nano Technology Remediation Methods – George Hoag, Ph.D., Senior Vice President, Director of Research and Development, VeruTEK Cooperation on Contaminated Site Characterization along the Tejo River near Lisbon – Cristina Ascenso, Head of Environmental Studies, ISQ – HQ Portugal EZVI - Jackie Quinn, Environmental Engineer, NASA 	<p>B.3. Creating Sustainable Facilities and Operations: Challenges from Encroachment and Climate Change</p> <p>Session Lead: Christina Hudson, SAIC / Sam Higuchi, NASA HQ</p>	<ol style="list-style-type: none"> Introductions, Session Overview, NASA Encroachment Process – Christina Hudson, Deputy Division Manager, SAIC and Sam Higuchi, Staff Engineer, NASA – HQ Encroachment Case Study – Mick Bilney, Consultant, TEC How to Start Addressing Climate Change Impacts & Adaptation: Pilot Workshop – Sam Higuchi, Staff Engineer, NASA HQ
10:10 am – 10:25 am	Break			
10:25 am – 11:25 am	<p>A.3. Remediation and Cleanup</p> <p>Session Lead: Jackie Quinn NASA</p>	<ol style="list-style-type: none"> NASA Remediation Challenges – David Amidei, Environmental Engineer, NASA - HQ Efficiently Controllable Permeable Reactive Barriers (EC-PRBs) For Effective Passive In Situ Ground Water Remediation: A European Perspective – Dr. Volker Birke, Dipl.-Chem, Ostfalia University - University of Applied Sciences Braunschweig-Wolfenbüttel - Campus Suderburg 	<p>B.3. Creating Sustainable Facilities and Operations: Challenges from Encroachment and Climate Change</p> <p>Session Lead: Christina Hudson, SAIC / Sam Higuchi, NASA HQ</p>	<ol style="list-style-type: none"> Overview of Climate Change – Alex Ruane, NASA GISS Climate Change Impacts and Strategic Mitigation Measures in Coastal Zones - Mário Baptista Coelho, Prof. Dr., Lisbon Sciences University Port Cities Exposure to Climate Change: Mitigation and Adaptation Costs - Susan Hanson, Research Fellow, University of Southampton - Tyndall Centre for Climate Change Research Adaptation Measures in New York City – Alex Ruane, NASA GISS Sustainability as Overarching Solution – Christina Hudson, Deputy Division Manager, SAIC
11:25 am – 12:45 pm	Breakout Session		Breakout Session	
1:00 pm – 2:00 pm	Lunch (may be purchased at the GE canteen/cafeteria)			
2:00 pm – 3:45 pm	<p>A.4. Recycling and Pollution Control</p> <p>Session Lead: Janet Bethay Innovative Health Applications, LLC</p>	<ol style="list-style-type: none"> Opening Remarks & Speaker Intro – Janet Bethay, NASA Lead Center for Recycling and Affirmative Procurement, Lead, Innovative Health Applications, LLC Hazardous Waste Associated With Space Launch Operations: Hypergolic Vapors and Liquids – Kurt Kessel, Senior Engineer, ITB Reduction of VOCs & Other GHG Emissions from Gas Streams Using Membrane Technology – Stephen P. Conover, President & C.E.O., Applied Membrane Technology, Inc. Sustaining Mission Success Through Recycling and Green Purchasing – Janet Bethay, NASA Lead Center for Recycling and Affirmative Procurement, Lead, Innovative Health Applications, LLC 	<p>B.4. Creating Sustainable Facilities and Operations: Challenges from Encroachment and Climate Change</p>	<ol style="list-style-type: none"> Follow-on Discussion and Brainstorming – Christina Hudson, Deputy Division Manager, SAIC and Sam Higuchi, Staff Engineer, NASA – HQ
3:10 pm – 3:45 pm	Breakout Session		Breakout Session	
3:45 pm – 4:00 pm	Wrap-up			

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Time	Day 4- GE Energy- Jenbacher Headquarters Biogas Technical Tour - Jenbach/Austria	
	Friday, November 13	
7:15 am – 7:35 am	Meet in Munich Marriott Hotel Lobby	
7:45 am	Depart Munich Marriott Hotel	
9:30 am	Arrive at GE Energy- Jenbacher Headquarters	
9:30 am – 12:00 pm	Biogas Plant Tour: GE’s Jenbacher Gas Engine Division is one of the world’s leading manufactures of gas-fueled reciprocating engines, packaged generator sets and cogeneration units for power generation. It is one of the only companies in the world focusing exclusively on gas technology.	Hall 7: Tool Management Hall 6: Heat Treatment and Material Testing Hall 5: Engine Assembly Hall 4: Crankshafts Hall 3: Cylinder Liner and Small Parts Hall 2: Horizontal Machining Center Hall 1: Crankcase and Large Parts
12:00 pm – 1:00 pm	Lunch (GE Energy- Jenbacher canteen/cafeteria)	
1:00 pm – 2:00 pm	Wrap-up, Q & A, Final Discussion	
2:00 pm	Depart GE Energy- Jenbacher Headquarters	
3:45 pm	Arrive at Munich Marriott Hotel	

*Space is limited. A sign-up sheet will be available at the workshop registration desk.