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### About IEEE DEST 2013:

#### What are Digital Ecosystems?

Digital Ecosystems inherit concepts of open, loosely coupled, demand-driven, domain clustered, agent-based self-organized collaborative environments where species/agents form a temporary coalition (or longer term) for a specific purpose or goals. Within this environment everyone is proactive and responsive for their own benefit or profit. The essence of digital ecosystems is the adoption of ecological system concepts, and creating value by making connections through collective intelligence and promoting collaboration instead of unbridled competition and ICT-based catalyst effects in a number of domains, to produce networked enriched communities and solutions.

#### What are Digital Ecosystem Technologies?

In the present Digital Age, strong development of digital network infrastructure has dominated our service delivery, economic growth and life style. Future applications in domains such as Health-Science, Energy, Social Networks and Logistics demand infrastructures that are more agile than those operated currently. Digital Ecosystems aim to capture the notion of such agile and adaptive infrastructures. Digital Ecosystem Technologies encompass the advent of the whole spectrum of Internet technologies, starting from the hyperlinked web towards pervasive internet applications, from Peer-to-Peer systems to Grid middleware, followed by Cloud Services, Agent technologies, Sensor Networks and Cyber Physical Systems, which has become a major theme for business process digitalization.

#### Complex Environment Engineering - Special Theme for IEEE-DEST 2013

Today's global challenges such as in Energy and Sustainability, Healthcare and an Aging Society, Public Safety and Security, or Democracy and Participation/Involvement confront us with the most Complex Environments. Traditional ICT-support has often increased complexity, thus making the challenges even more severe. The Digital Ecosystem perspective aims to address the two-fold challenge of Complex Environment Engineering and Digital Ecosystem Technology mapping. The complexity of both the challenges and the technological solutions has to be acknowledged.

IEEE DEST 2013 with its special theme of - Complex Environment Engineering recognizes the key role of business process data modeling, representation and privacy-aware analysis for Digital Ecosystems, and vice versa. Further, the Innovation Adoption Forum underpins the importance of public-private partnership as the key for delivering sustainable solutions for our Complex Living and Business Environment – and thus our Digital Ecosystem Habitat. Our Keynotes, Panels and Sessions will tackle the multifaceted challenges and solutions from various stakeholders' perspectives.

#### Important Dates:

**Submission of Tutorial: 15 Dec 2012**  
Notification of Acceptance of  
Tutorial/Workshop/Special Session **15 Jan 2013**

Paper Submission: **25 March 2013**  
Author Notification: **22 Apr 2013**  
Camera Ready Version: **15 May 2013**

#### Contact Information:

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### Paper Submission:

Papers should be original works and up to 6 pages in length. All submitted papers will be peer reviewed by at least 3 independent reviewers. Papers submitted for this conference must be formatted to fit on A4 paper in a two column format. The author should use a word processor or desktop publishing system to produce a "camera ready" paper on A4 paper.

All manuscripts submitted for this conference must be in IEEE Xplore-compatible PDF

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format. To assist authors in meeting this requirement, IEEE has established a web based service called PDF Xpress. We strongly suggest that you use this service. Complete information on the papers submission system for IEEE DEST 2013 will be made available shortly on

<http://dest2013.digital-ecology.org/index.php/paper-submission>

## Conference Location and Context:

The IEEE DEST-CEE 2013 will be hosted in Menlo Park, California. Situated in the heart of the Silicon Valley, it's right in the epicenter of the Digital Ecosystem revolution. The research and innovation ecosystem here is legendary, fuelled by the unique spirit and entrepreneurship of The Valley and The Bay Area. Bridging the Bay, UC Berkeley and Stanford University are world renown for their global impact in science and technology, trends setting in society and ecology/sustainability, and economic development. Companies such as IBM, Intel, google, facebook linkin and numerous other technology drivers are in direct proximity. From San Jose to Woodside to Berkeley, the spirit is "in the air" – today as much as in the past decades. IEEE DEST-CEE 2013 will take place in the heart of the Silicon Valley, at stunning conference locations in Paolo Alto and at Stanford University. People around the globe enjoy the Californian Way of Life, blending it's vibrant socio-technological momentum with the tranquility of the Pacific, it's redwood forests, and San Francisco and Berkeley as the spirited places for those who still see it as the counter-culture centre of the Sixties. Free Speech and "Flower Power" are forever in Berkeley's and San Francisco's "DNA," as much as Venture Capital Companies and technology leaders team up in The Valley. IEEE DEST-CEE 2013 taps and gets involved into this ecosystem. We look forward to your involvement!



Golden Gate Bridge



Stanford



Palo-alto

## Conference Tracks:

### AREA I: FOUNDATIONS AND TECHNOLOGIES

Area I deals with the basic ICT foundations of digital ecosystems, including large-scale, virtualized infrastructures, hosting ecosystem services and processes. Ecosystems require a novel approach to ICT technology development, closely related to the engineering of complex systems. Area I includes two one-day tracks that feature contributions on how the technological support for digital ecosystems is emerging.

**Track A: Foundations of Digital Ecosystems & Complex Environment Engineering**

**Track B: Convergence of Technologies for Sustainable Infrastructures**

### AREA II: SUSTAINABLE DOMAIN SOLUTIONS

Area II presents contributions in various application domains, Just as the development of Smart Grids required the convergence of energy and information system infrastructures, radically new approaches to the design, convergence, and adoption of systems are required for future solutions in a variety of domains. Radically increasing the involvement of stakeholders with complex environments is one potential route for providing solutions in these domains, for example in energy systems or healthcare. In the longer term, approaches for enabling collaborative ecosystems may lead to high-impact solutions for today's most pressing challenges. The "Sustainable Domain Solutions" tracks will identify domain requirements, research challenges and systems solutions with respect to the concept of Digital Ecosystems and Complex Environment Engineering, as outlined in the background and objectives of IEEE DEST 2013. Within this context, the tracks will focus on, but not be limited to, the issues like - Scalability and availability, with respect to large infrastructure platforms; evolvability, with respect to the introduction and life-cycle of service platforms; and usability, with respect to human factors and user benefits.

**Track C: Digital Humanities**

**Track D: Cyber-Security Ecosystem**

**Track E: Hybrid Biological-Digital Systems**

**Track F: Healthcare and Sustainable Living**

**Track G: Track I: Platforms for Social and Community Involvement / Engagement**

**Track H: Cyber-Physical Energy Systems**

**Track I: Collaborative Platforms for Sustainable Logistics and Transportation**

**Track J: Fuzzy Semantic computing in digital ecosystems**

**Track K: Big Data Ecosystems**

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