

2016 IEEE 5th Global Conference on Consumer Electronics





Advancing Technology for Humanity

October 11-14, 2016. KYOTO, JAPAN

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### Contact

support@ieee-gcce.org

### For More Information

www.ieee-gcce.org



**2016 IEEE 5th Global Conference on Consumer Electronics (GCCE 2016)** is asking for submissions of technical papers for **Oral**, **Demo!**, and **Poster** presentations.

The IEEE GCCE 2016 will bring together top technical professionals from the consumer electronics industry and academia to exchange information and results of state-of-the-art work on systems, circuits, technologies, processes and applications!

**Student papers** are particularly encouraged.



### **Important Dates**

Entry Deadline for Submissions	June 1, 2016
2-pages Review Paper Submission	June 10, 2016
Notification of Acceptance	July 25, 2016
Deadline of Early-bird Registration	August 12, 2016
IEEE GCCE 2016	October 11-14, 2016

Accepted and presented papers will be appeared in **IEEE Xplore** and the authors are encouraged to submit enhanced journal-quality papers to the **IEEE Transactions on Consumer Electronics!** 

In 2016, GCCE is planning to introduce new "Co-design Awards" for papers that seeked for the best balanced solutions of hard/soft, D/A, cost/performance, and so on!

### **Organizational Sponsors**



The Institute of Electronics, Information and Communication Engineers



The Institute of Electrical Engineers of Japan



The Institute of Image Information and Television Engineers



The Information Processing Society of Japan



The Institute of Image Electronics Engineers of Japan



Japan Institute of Electronics Packaging



Game Amusement Society



Japan Institute of Power Electronics

Ver. 3.00



# Communication





















**ENTERTAINMENT / EDUCATION** 

Shingo Yamaguchi (Yamaguchi University, JP)

Makio Fukuda (Osaka International University, JP)

Masayuki Ueno, JP (Osaka Electro-Communication University)

Co-Chairs: Tomoyuki Takami (Osaka Electro-Communication University, JP)

Toshihiro Hayashi (Kagawa University, JP)

e-Learning Technologies

& Their Applications

Co-Chair: Nobuo Funabiki (Okayama University, JP)

**GAM:** Game Amusement



# **Organized Session Topics**

# HOME / LIFE

**Artificial Intelligence** and Embedded Systems

Thinagaran Perumal (Universiti Putra Malaysia, MY)

**Co-Chair:** Chui Yew Leong (Catrino, MY)

**Artificial Intelligence & Robotics** 

Shohei Kato (Nagoya Institute of Technology, JP) Co-Chairs: Takahiro Uchiya (Nagoya Institute of Technology, JP) Atsuko Mutoh (Nagoya Institute of Technology, JP)

Ryota Nishimura (Keio University, JP)

STA: Sensing Technologies and **Applications for Consumer Services** 

Norihiko Shinomiya (Soka University, JP) Chair: Co-Chair: Michiko Nishiyama (Soka University, JP)

**New Apparatus & Systems for Energy** Technologies in Home Appliances & CE

Chair: Hideki Omori (Osaka Institute of Technology, JP)

Co-Chair: Akihiko Kanoda (Hitachi, JP)

Health Monitoring, Personalized **Biomedical & Life Support Technologies** 

Seiji Nishifuji (Yamaguchi University, JP) Chair: Co-Chairs: Ryoichi Suzuki (Kanazawa Institute of Technology, JP)

Shenglin Mu

(Hiroshima National College of Maritime Technology, JP)

PSH: Large Scale Signal Processing in Smart Home

Huang-Chia Shih (Yuan Ze University, TW) Chair: **Co-Chairs:** Wei-Yu Chiu (Yuan Ze University, TW)

Ting-Lan Lin (Chung Yuan Christian University, TW)

# **MOBILITY / EMBEDDED**

**Advanced Embedded Systems Development & Electronics Design** 

Chair: Yoshihiro Saito (Sharp, JP)

**Intelligent Transport Systems** 

Chair: Tomotaka Wada (Kansai University, JP)

Co-Chairs: Naohisa Hashimoto (National Institute of Advanced Industrial Science and Technology, JP)

Hiroyuki Hatano (Utsunomiya University, JP)

# **MVD:** Microelectronics & VLSI Design

Balwinder Raj (National Institute of Technology Jalandhar, IN) Co-Chair: B.B.Gupta (National Institute of Technology Kurukshetra, IN)

**WCD:** Wearable Consumer Devices

Tomoya Kawakami (Nara Institute of Science and Technology, JP) **Co-Chair:** Tomoki Yoshihisa (Osaka University, JP)

### **AUDIO / VISUAL**

Recent Audio & Acoustic Technology

Kazuhiko Kawahara (Kyushu University, JP) Co-Chairs: Kazuma Hoshi (Nihon University, JP)

Atsushi Marui (Tokyo University of the Arts, JP)

VHS: Virtual Reality & Monitoring for Health and Safety

Chair: Kingkarn Sookhanaphibarn (Bangkok University, TH)

**Co-Chairs:** Karel Sterckx (Bangkok University, TH) Romuald Jolivot (Bangkok University, TH)

### **NETWORK / SECURITY**

ELT:

Chair:

# ACE: Formal Approach to Consumer Electronics CPS: Smart Cyber-Physical Systems

Ichiro Toyoshima (Toshiba, JP)

Co-Chairs: Shingo Yamaguchi (Yamaguchi University, JP)

Daisuke Ishii (Fukui University, JP)

# **Recent Advancements in Cyber Security**

B. B. Gupta (National Institute of Technology Kurukshetra, IN) Chair:

Hideyuki Takahashi (Tohoku University, JP)

Co-Chairs: Miro Lehtonen (Kasetsart University, TH) Shingo Yamaguchi (Yamaguchi University, JP)

### **CNW:** Systems & Applications for Consumer Newtworks

Chair: Akihito Hiromori (Osaka University, JP) Co-Chairs: Masayuki Hiromoto (Kyoto University, JP)

# & Open Data

Shigeaki Tanimoto (Chiba Institute of Technology, JP) Chair: Co-Chairs: Toru Kobayashi (Nagasaki University, JP)

Atsushi Kanai (Hosei University, JP)

Xiaodong Lu (Electronic Navigation Research Institute, JP)

### IOT: **Consumer Centric Internet of Things** & Mobile Edge Computing (CC-IoT MEC)

Soumya Kanti Datta (Eurecom, France, FR) Chair: **Co-Chairs:** Thomas Coughlin (IEEE CE Society, US) Thinagaran Perumal (UPM, MY)

# **ONS:** Opportunistic Network & Security Issues

Khaleel Ahmad (Maulana Azad National Urdu University, IN)

Co-Chairs: M. A. Rizvi (National Institute

of Technical Teacher Training and Research, IN) Afrah Fathima (Maulana Azad National Urdu University, IN)

See http://www.ieee-gcce.org/2016/organized.html for details.

# **Regular Session Topics & Keywords**

# **TV & Display Technologies**

Future TV, Mobile TV, Ultra HDTV, Network TV, Super Resolution Signal Processing, Smart TV, 3D Imaging and Display, OEL, VoD, Visual Media Communication

# **AV Processing & Streaming**

Still and Video Cameras, Audio Systems and Technologies, Recording, Video Processing and Codecs, Storage Compression, Transcoding, Content Indexing, Video Enhancement, Interactive Video Streaming, Visual Quality Assessment, AV System Evaluation

# **Storage & Digital Media**

Optical Storage, Magnetic Storage, Next-generation Storage Media, Semiconductors, Storage Technology, Cloud Media, Interactive Media, CE and Cloud Computing

# **Security & Rights Management**

Copy and Redistribution Protection, Payments, Parental Controls, CE and Digital Content Issues, Data Collection, Biometrics, Privacy, Encryption

### Wireless & RF in CE

Antennas, Acquisition, Equalization, Spectrum Usage, Software Radio, Wireless LAN, IEEE 802.11 Standards, Bluetooth, RFID, WPAN, Wireless Power Transmission

# **Mobile Computing & Communications**

Mobile Broadband, Handheld and Wearable Computers, Personal Multimedia Devices, AV Streaming to Handheld Devices, Next-Generation Cellular Phones, Smart Phone Technologies

# **Automotive Entertainment & Information**

Navigation, Driver Assistance, Car AV Systems, In-Car Internet, Communication Aspects, Automotive UI, Automotive Sensors and Controls

# **Embedded Technologies**

Embedded Systems, Embedded OS, Embedded Software, High-density Mounting, Advanced Semiconductors, **Development Tools** 

### **Home Networks & Services**

Wired and Wireless Networks at Home, Home Gateway, QoS, Bridges, Peer-to-Peer, Interoperability, Application Control, PVR, Home Theater, Interconnects, Gaming Devices and Systems, Internet Integration

### **Home Medical & Healthcare**

Home Medical Equipment, Medical IT/ICT, Healthcare Applications, Wellness Devices

### Smart Grid & CE

Smart House, HEMS, BEMS, FEMS, CEMS, Smart Meter, Power Monitors, Energy Storage, On-site Power Generation, Sensors and Networks for Smart Grid, Internet of Things

# **Green Energy**

Solar Cell, Wind-generated Electricity for CE, Rechargeable Energy, **Energy Harvesting** 

# **User Interfaces & Experience in CE**

Gesture Operation, Multitouch, Natural User Interface, Haptics, User Experience, HCI for CE, Usability, User Centered Design, Accessibility, Special-Needs/Assistive Technology

# **Enabling Technologies**

High Speed Signals and Interconnects, Intellectual Property, Manufacturing and Test Technology for CE, Algorithms, Recyclable Engineering, Product Safety, White Goods

See http://www.ieee-gcce.org/2016/topics.html for details.







**EDA Tools** 





**Image** 



Packaging

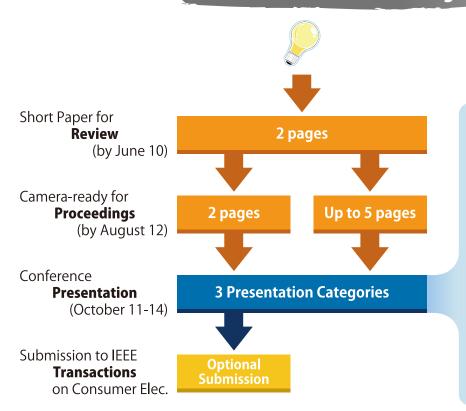


Motor Contro





# **Submission Categories**



# **Oral Category**

### **Demo Category**

### **Authors' Advantages**

- Optional "Impact" score
  - Papers will have additional "Impact" scores, depending on optionally submitted movies.
- Extended due

Review paper deadline is longer than orals and posters.

Excellent Demo! Awards

GCCE 2015 offers Special Demo! Awards.

A poster panel with a desk, two chairs, a 100V AC outlet, and 802.11g wireless broadband will be provided for each booth.

### **Poster Category**

Presented proceedings papers will be published in **IEEE Xplore** and the authors are encouraged to submit enhanced journal-quality papers to the **IEEE Transactions on Consumer Electronics!** 



Keynotes & Symposiums

**Tutorials** 

**Gold Event Lectures** 

CEATEC Tour in English

**Award Banquet** 

Japanese Handicraft Experience

### **Technical Program Committee**

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