PTC'18

40TH ANNIVERSARY
CONNECTING WORLDS

21–24 January 2018 | Honolulu, Hawaii

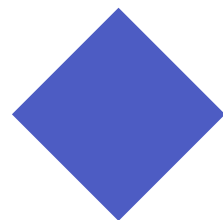## CALL FOR PARTICIPATION

PACIFIC TELECOMMUNICATIONS COUNCIL

CALL FOR PARTICIPATION

PTC'18 is all about connecting worlds. A diverse set of conference attendees and speakers representing various disciplines and specialties will connect the worlds of technology, business, and regulatory policy; of network-centric enablers with emerging business models, ecosystems, and competitive strategies. Attendees will make a world of new connections--and renew long lasting friendships--around the Pacific Rim, and beyond, bridging developed countries and their network infrastructure, services and apps with the developing world and its unique societal needs and contexts. A rich, diverse set of topics will enable attendees to connect the worlds of submarine, satellite, and wireless, clouds and colo, security, machine learning, and cognitive computing. Finally, in this, our fortieth anniversary year, PTC will connect the world of the past few decades with the unfolding limitless opportunities of the future.

Where is the satellite industry going as new constellations launch? How will the universal embrace of Internet apps, mobility and cloud computing affect the undersea business? Will 5G really create huge new markets and revenue streams? What will virtualized networks mean for customers and suppliers? Will the cloud business be disrupted by edge computing? How will universal Internet access be provided, and made sustainable? How can people and institutions be protected from cyber-attacks? How should regulation change to support both innovation and investment?

What will big data, machine learning, deep learning, cognitive computing and artificial intelligence mean for the industry and its customers? What are the implications of shifts in user behavior, from voice to data to video? How will tomorrow's communications industry be different from today's industry? How will we get there?

PTC'18 will afford participants—speakers and audiences—to explore the critical transformational shifts of the next four years, and the next forty years. Please join us in Honolulu this coming 21–24 January 2018 and help navigate through this accelerating whirlwind of global disruption.

GUIDELINES

General Proposal Submission

PTC's tradition is for presenters and panelists to provide industry knowledge and insights, and not use it as a platform for commercial purposes or public relations for themselves.

To improve your chances of being selected, please note the following:

- Submit a short and well-crafted proposal that defines the problem(s) or issues(s) you intend to address.

- Explain why your approach is significant; focus on strategic directions, rather than specific technicalities.

- Include the proposed speaker's information (i.e. name, job title, company) and a short 150-word bio and contact information.

- DO NOT submit commercial or product promotions / service pitches orproposals that otherwise focus on a company. Proposals that are of commercial nature or otherwise focus on a company will NOT be accepted.

Proposal submission deadline is **26 July 2017**. Late submissions have little chance of acceptance.

PR/Marketing Firm

Please be advised that the PTC conference only accepts proposals for the senior-most person from one organization. Multiple submissions from the same organization are likely to be rejected.

Do **NOT** submit commercial or product promotions. Any marketing proposal submitted will not be considered.

Proposal Options

1. **NEW*** Product Demonstration
2. Executive Insight Roundtable
3. Topical Session
4. Workshop/Roundtable
6. Research Proposal
7. Student Paper
8. Other:
   Suggestions for audience-engaging formats at PTC'18 are welcome.

Deadlines *(General Proposal)*

Proposal Submission:
26 July 2017

Final Paper and Presentation Slides:
4 December 2017

Proposal Status Notification:
starting 16 August 2017

Product Demonstrations*

New proposal option for PTC's annual conference

If you want to share a new and innovative product demonstration this is for you!

Product demonstration is open to individuals or companies interested in doing a product demo at PTC'18. Kindly submit a short proposal with details on your product.

Participant is responsible for all logistics and costs involved with the demonstration.

Sale of product at conference is strictly prohibited.

TOPICS

For speaking opportunities at PTC'18, please submit a proposal on one of the following topics.

The Past and Future of Telecommunications

The last 40 years of PTC and the telecommunications industry have brought immense changes: deregulation, divestiture, and trivestiture. Voice has been supplanted by data, and data by video. Single-purpose proprietary networks to multiprotocol, multi-service, and the Internet. IPv4 to IPv6. Wireline to 1G mobile to 2G to 2.5G to 3G to 4G and now to 5G. Data centers used modems and SNA to connect, now enterprise data centers are evolving to cloud, hybrid cloud, multi-cloud, and edge/fog. Incumbents have been challenged in every arena: WhatsApp has disrupted SMS, Google has laid fiber, Facebook is using solar-powered planes to become an ISP.

Can we learn anything from the past 40 years of telecommunications technology and business model innovation that will help us predict the next 40? Is global consolidation inevitable or will national sovereignty rule? Can infrastructure (re) gain the upper hand over content or is content king? What is the ecosystem role—and profit profile—of network operations?

Submarine Cable

Over the past 40 years, tremendous developments across the submarine cable industry and technological differences between wired and wireless communications have driven a massive shift of the world's international telecommunications traffic from satellite transit to cable transit.

This critical infrastructure, intricately meshing subsea systems across the world, supported the transformation of a global economy reliant on the Internet, data communications, and the global cable network.

What are the critical challenges—such as connectivity, demand, security, and operations—facing tomorrow's network and capacity solutions? Who and what are influencing change and innovation in global communications? What influence will the OTTs, new data center architectures, sustainability, and the cloud have on tomorrow's solutions?

Satellite

The satellite industry is experiencing an unprecedented wave of change, challenging established business models for all participants. The changes are coming from all quarters: "New Space" and terrestrial technologies, as well as dramatic shifts in demand, driven heavily from mobility and underserved geographical markets.

Satellite operators are forging new alliances and diversifying their technologies in order to offer a variety of coverage, price, or latency options for both new and traditional applications, some of which may up-end their current businesses.

Satellite manufacturers and launch service providers are being challenged by demands to invest more and take more risk to lower prices, reduce production cycles, and provide more flexible products against a backdrop of market turbulence, industry change, and new entrants.

Where is the industry going? Will the rise of one type of satellite constellation lead to the demise of another? What are the real latency requirements of the new 5G systems? Are the assumed price reductions available with High Throughput Satellites (HTS) real or only available when the satellites are full?

Mobile / Wireless / 5G

Mobile is the way most people now use voice and messaging; get access to the Internet and increasingly, the way they consume video. Soon, commercial 5G will emerge, promising a fundamental evolution of the wireless business from services for humans to services for very large numbers of simultaneously connected sensors and servers running at high speeds with low latency.

How will fixed networks and business models be impacted? How will the IoT and OTT apps change business and revenue models as "smart life" becomes a reality? How will core networks evolve to support broadband video together with narrowband IoT and utilize new approaches, such as C-RAN? Which standards will win? What are the opportunities for partnerships? How will "customer ownership" change, and what are the implications?

What spectrum policies are needed to enable all the benefits? How will we find all the new spectrum, and what will it be used for? How will multiple waves of change affect society, economy, and industry? What are the investment incentives and how will competitive advantage change?

TOPICS

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Network Infrastructure, Architectures and Technologies

Networks have experienced numerous waves of change over the past century: from operators to crossbar switches, analog to digital, purpose-built hardware to softswitches, voice to data, enterprise to cloud, people to things, 4G to 5G, HD to 4K to 8K, dumb networks to smart networks, and human to artificial intelligence and robots.

How are these massive, fundamental shifts impacting network infrastructure, operations, administration, and management? How are operators re-architecting their networks? What role will intelligent, software-defined networking play, and what lessons are operators learning from actual deployments?

How are operators actually evolving their network architecture, technology, and services, and deploying network virtualization, network functions virtualization, software-defined networks, SD-WAN, and gigabit technologies? How will this evolve in the coming years, and what are the financial implications? How is the ecosystem of vendors, operators, and customers evolving and are there really opportunities for telco cloud services?

Access and Opportunities in Emerging Markets

Half of the world's population is now connected; served by robust markets of multiple operators, services and vendors, but challenges remain. Many areas continue to lack adequate connectivity at an affordable level, including many rural areas in advanced markets as well.

How can we make better progress toward affordable and reliable communication access to the unconnected, still about half of the world's population? How can markets be made more open, competitive, transparent, and user-focused?

Will the next 40 years see at last a level playing field in communication access for all? What are the new opportunities and innovations for country and regional developments? What is the role of ICTs for more sustainable development? What works and what doesn't that can guide us?

Security, Privacy and Data Protection

Although networks and services are an essential part of everyone's life, loss of personal data and compromise of security are constant threats. Things such as smart TVs and nanny cams are becoming tools for unauthorized surveillance. DDoS attacks on bandwidth has surpassed the terabit per second level. Ransomware is endemic. Nation-state attacks play cat and mouse, continuously probing for vulnerabilities—and exploiting them. The network, an enabler of connectivity and collaboration, has too often become an enabler of cyberattack and criminal activity.

What are the latest strategies and best practices to protect us from unwarranted access to our information? What can be done to protect against privacy intrusion and security threats? What are the best strategies to counter cyber-threats? How are all of these threats affecting us as people, and as businesses?

IoT, Edge/Fog, Data Center, Cloud, Colo

Telecommunications is undergoing tectonic shifts due to emerging technologies and evolving services and applications. Rather than peer-to-peer traffic—as in the early days of voice—everything-as-a-service, consolidation initiatives, hyperscale data centers, and new enterprise applications are shifting traffic to traverse interconnection/peering facilities to connect private, public, and hybrid clouds. Meanwhile, switching centers are becoming cloud data centers, and cloud data centers are offering network services.

The next wave—Internet-connected things—will further this transition, shifting the balance of asymmetric traffic and driving requirements for bandwidth and network availability up and latency down.

How will new technologies and services, such as network virtualization, mobile data and digital media, new online users and devices, and the growth of cloud services and interconnections disrupt architectures, business models, and revenue streams?

TOPICS

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Big Data, Analytics, Machine Learning, Deep Learning, Cognitive, AI, Robotics

All of this processing and storage capacity, and the networks feeding it data, are leading to what may be the biggest transformation in connected networks since the arrival of the human cortex. We've evolved from traditional structured data in relational databases to big data; machine learning and deep learning, cognitive computing, advanced AI applications such as sentiment analysis, machine translation, image recognition, speech recognition, and the like.

How will we collect all this data, aggregate and learn from it? How will physical systems such as robots, drones, and factories place new demands on tomorrow's wireline and wireless networks?

Video and Virtual Reality

Analysts project that the vast majority of this new network bandwidth and architecture will be used for video in all its forms: streaming entertainment, video surveillance, and innovative scenarios such as crowdsourced video from sporting events.

How will video evolve, from 4K to 8K and beyond, to augmented reality and multi-screen immersive virtual reality, to facial/emotion recognition, safe cities, and electro holographic displays? What role will tomorrow's networks and architectures play?

Policy and Regulatory Challenges

Driven by growing mobile broadband use, industry and government are exploring new fifth-generation (5G) wireless standards and opportunities to free additional spectrum for high-bandwidth uses. Meanwhile, vertical integration between content and distribution industry segments continues to transform the broadband ecosystem.

In addition, the proliferation of connected devices and mobile Internet use continues to push regulators and legislators to address privacy and data security in their policymaking. The international patchwork of data protection law is constantly evolving in response to global technological changes and local privacy and data security needs.

What do these technological and regulatory changes mean for consumers and industry? What policies are needed to ensure continued investment in broadband infrastructure and the development of the global Internet economy? Will net neutrality principles continue to drive domestic and international conversations around broadband policy? What is the right balance of policies given commercial opportunities utilizing personal information, the need for network security, governmental uses for national security, and consumer expectations of privacy?

RESEARCH PAPER PRIZE AWARDS

PTC is pleased to offer two named awards for excellence in research: The *Meheroo Jussawalla Research Prize Award* for best overall participant research paper and the *Yale M. Braunstein Student Prize Award* for best student research paper at PTC'18.

For submission details, please refer to the online submission form at ptc.org.

Meheroo Jussawalla Research Prize Award

The Meheroo Jussawalla Research Prize Award is given to the best participant research paper at PTC's annual conference. Named in honor of the late international telecommunications scholar Meheroo Jussawalla, the Award is open to all conference participants whose research papers have been accepted for presentation.

Meheroo Jussawalla was an Emerita Senior Fellow/Economist at the prestigious East West Center in Honolulu. She served as an Affiliate Faculty in the Department of Economics and the School of Communications at the University of Hawaii at Manoa. A leading scholar in the Economics of Telecommunications, she published 15 books in the field and garnered several national and international awards, including two from the Pacific Telecommunications Council.

How to Submit a Paper for this Award

Submit proposal (full paper not required at time of submission) via ptc.org by 26 July 2017. If proposal is accepted for conference, the **FULL paper** must be submitted by **29 September 2017** for award consideration.

Award recipient will receive:

- US$1,000 cash award
- Conference registration waiver
- Speaking opportunity to present winning paper at PTC'18
- Stipend of up to US$1,500 for travel and accommodation (prize winner to arrange for own accommodation)
- Certificate to be presented at the PTC'18 Closing Lunch and Awards Ceremony

Terms and Conditions:

- Researchers and faculty members are welcome to apply. Students with a faculty co-author may also submit a proposal
- Must be an original research paper in the field of telecommunications or information and communication technology (ICT)
- Prize award winner for PTC'17 is not eligible for this same prize the following year
- Author will allow PTC to publish his/her paper and presentation slides on the PTC'18 conference website
- Publication of the paper elsewhere is allowed after it has been presented at PTC'18

Deadlines
(Research Proposal/Student Paper)

Research Proposal Submission:
26 July 2017

Research Proposal Status Notification:
starting 16 August 2017

Full Research Paper
(for *M.J. Research Prize Award* consideration):
29 September 2017

Student Paper:
1 September 2017

Student Paper Notification:
25 September 2017

Full Research Paper and Presentation Slides:
4 December 2017

RESEARCH PAPER PRIZE AWARDS

Yale M. Braunstein Student Prize Award

The *Yale M. Braunstein Student Prize Award* for best student paper submitted for the PTC'18 conference is named in honor of Yale M. Braunstein, longtime participant and contributor to PTC's Research Committee. Through the years, he encouraged many students in the field of telecommunications and information to become involved in PTC.

Yale was a scholar of the economics of information and communications industries and systems, with a focus on telecommunications policy, broadband, and the economics of intellectual property policy. He authored or co-authored more than 50 articles in the fields of economics and information science and worked as a consultant in the United States and internationally.

Yale served on the faculty of the UC Berkeley School of Information where he was engaged in virtually all of the School's endeavors and had a positive impact on professional and personal lives of faculty, staff, and students. His generosity, humor, and good advice reached every corner of the Berkeley campus.

Both at PTC and UC Berkeley he was known as a wise counselor and mentor for students and faculty alike. He was also a tireless advocate for students' welfare. In nearly 30 years at Berkeley, Yale advised a number of Ph.D. dissertations in information economics and policy.

In 2007, Yale established the Pacific Telecommunications Council's O. S. Braunstein Prize for the year's best student research paper in telecommunications in honor of his late father, a chemist, photographer, and businessman.

How to Submit a Paper for this Award

Student authors (with a 2018 or later graduation date) should upload their __FULL paper__ *(not proposal) at time of submission, and email proof of current student status, i.e. transcript, official letter from school administrator, etc. to ptc18@ptc.org. Deadline for the paper and proof of status is* **1 September 2017**.

Award recipient will receive:

- US$1,000 cash award
- Conference registration waiver
- Speaking opportunity to present the winning paper at PTC'18
- Stipend of up to US$1,500 for travel and accommodation (prize winner to arrange for own accommodation)
- Certificate to be presented at the PTC'18 Closing Lunch and Awards Ceremony

Terms and Conditions:

- Award is open to all currently enrolled students with a 2018 or later graduation date
- Must be an original research paper
- Authored by a single student or co-authored with one or more fellow students. Papers co-authored with faculty members are ineligible
- Prize award winner for PTC'17 is not eligible for this same prize the following year
- Author will allow PTC to publish his/her paper and presentation slides on the PTC'18 conference website
- Publication of the paper elsewhere is allowed after it has been presented at PTC'18

Other Opportunities for Participation in PTC'18

Maximize your organization's exposure and visibility at PTC'18. Sponsor an event or a delegate item.

For more information, please email sponsors@ptc.org.

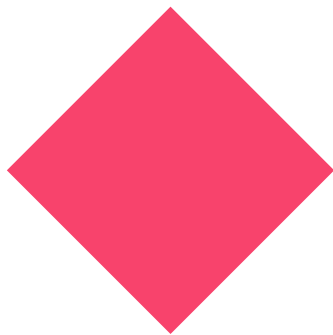Tel: +1.808.941.3789 | Fax: +1.808.944.4874

How to Submit a Proposal
Submit your proposal online at ptc.org

Questions? Please contact Ms. Jamie Wan-Lopaz at ptc18@ptc.org.

PACIFIC TELECOMMUNICATIONS COUNCIL