



The Sixteenth International Conference on Systems and Networks Communications
ICSNC 2021
October 03, 2021 to October 07, 2021 - Barcelona, Spain

- Submit a Contribution
- Registration
- Camera Ready

ICSNC 2021
Onsite and Online Options: In order to accommodate a large number of situations, we are offering the option for either physical presence or virtual participation (pdf slides or pre-recorded videos).

Deadlines

Submission **Jul 27, 2021**

Notification Aug 19, 2021

Registration Sep 02, 2021

Camera ready Sep 04, 2021

Deadlines differ for special tracks. Please consult the conference home page for special tracks Call for Papers (if any).

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- Registered: with the Library of Congress of the United States of America (ISSN)
- Free Access: in [ThinkMind Digital Library](#).

- Past Events
- Sponsors



Publication

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[Indexing Procedure](#)

ICSNC 2021 is colocated with the following events as part of SoftNet 2021 Congress:

- ICSEA 2021**, The Sixteenth International Conference on Software Engineering Advances
- ICSNC 2021**, The Sixteenth International Conference on Systems and Networks Communications
- CENTRIC 2021**, The Fourteenth International Conference on Advances in Human-oriented and Personalized Mechanisms, Technologies, and Services
- VALID 2021**, The Thirteenth International Conference on Advances in System Testing and Validation Lifecycle
- SIMUL 2021**, The Thirteenth International Conference on Advances in System Simulation
- SOTICS 2021**, The Eleventh International Conference on Social Media Technologies, Communication, and Informatics
- INNOV 2021**, The Tenth International Conference on Communications, Computation, Networks and Technologies
- HEALTHINFO 2021**, The Sixth International Conference on Informatics and Assistive Technologies for Health-Care, Medical Support and Wellbeing

ICSNC 2021 Steering Committee



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Special tracks:

A4E: AI in Energy Discovery, Recovery, and Production
Chair: Dr. Damian San Roman Alerigi, EXPEC Advanced Research Center, Saudi Aramco, Saudi Arabia damian_sanromanalerigi@aramco.com

G-PHOTON: Geo-photonics, Intelligent Illumination of Planetary Matter
Chairs:
Dr. Damian San Roman Alerigi, EXPEC Advanced Research Center, Saudi Aramco, Saudi Arabia damian_sanromanalerigi@aramco.com
Dr. Bastian Sauerer, Schlumberger, Houston, USA bastian@slb.com

ICSNC 2021 conference tracks:

Advanced features

SDN, SDX, NFV; 4G/5G and advanced mobile Internet; Internet of X (everything, things, people, etc.); Internet, Virtualization and Cloud; Internet and Big Data; Sensing and sensor networks; Energy-aware networks; Content-oriented networking; Cellular cognitive networks; Future routing mechanisms; Cloud-based services; Online interactive services; Mobile services

Slicing and 5/6/7G technologies

Network slicing models; 5G Network slicing Architecture; 5G/6G Networks slicing; End to End (E2E) network slicing; Automated networks slicing; Network Slice as a Service(NSaaS); Service slicing; IoT service slicing; Slicing-as-a-Service (SaaS); Slicing and orchestration; Latency-sensitive 5G services; Differentiated slice-based 5G services; 5G E2E (End to End), 6G Cellular data networks; Indoor 5G Open Radio Access Network (O-RAN); 5G mmWave; 7G and 8G network and High speed internet. Network slicing market. Networks slicing ROI (Return on Investment); 6-7-8G and ROI.

Wireless networks

3G/4G/5G integration; Wireless protocols, architectural and design concepts; Design and implementation of mobile information systems; Wireless communications and mechanisms; Antenna and RF subsystems; Coding & modulation & equalization; Channel modeling and characterization; Equalization/Synchronization; Wireless technologies; Wireless applications & services; IP Multimedia subsystems (IMS); Wireless and mobility; Wireless-wireless convergence; Radio communications systems; Specialized wireless networks; Management of wireless networks; Position on standards & fora on wireless networks; Business models on wireless networks; Communications regulations, Spectrum management; Software-Defined Radio (SDR) [architectures, hardware, software, signal processing and smart antennas, etc.]

High speed networks

Technologies, protocols, and applications for high speed networks; Voice over high speed networks; Services and interconnections of high speed networks; Technologies for High speed optical networks; Optical burst switching; End-to-end applications; Optical control plan; Advanced optical technology architectures; Design of high speed systems and networks; Methodologies and development tools for high speed networks; Management and control of high speed networks; Performance in high speed networks; Security aspects in high speed networks; QoS/SLA in high speed networks; Diagnosing high speed networks; High speed networks and NGN

Sensor networks

Architectures and protocols for wired and wireless sensor networks; Internet of Things architectures and implementations; Design of sensor networks; Instrumentation and models for deployment of sensors networks; Power in sensor networks; Ad hoc and wireless sensor networks; Management and control of sensor networks; Performance in sensor networks; Security and reliability aspects in sensor networks; Information assurance in sensor networks; QoS/SLA in sensor networks; Applications, case studies and prototypes with sensor networks

Mobile and Ad hoc networks

Mobile technology and fundamentals; Analytical and validation models for mobility; Architecture and routing protocols for mobile networks; Architectures, frameworks, fundamentals on ad hoc networks; Energy efficient design, cross-layer design, scalability; MAC protocols for ad-hoc and sensor networks (801.11, Bluetooth, etc.); Data, information, and signal processing in mobile networks; Complexity analysis of mobile algorithms and protocols; Software platforms and development tools supporting mobility; QoS/SLA, access control and security in mobile and ad hoc networks; Location and mobility management; Location and service discovery in ad hoc networks; Planning, provisioning, and deployment mobility features; Directional and smart antennas for mobile and ad-hoc networks; Performance and security in ad hoc and mobile networks; Self-organization, synchronization and stability in ad hoc networks; Self-management in ad hoc and mobile networks; Ad hoc and mobile networks and autonomic computing; Mobile ad hoc platforms, systems and tools; Applications over ad hoc networks; Standards evolution on mobility and ad hoc networks

Advances in P2P Systems

Architectures and protocols; Gossip-based and epidemic protocols; Integration with network operators and service providers; Autonomic computing and networking; Semantic P2P; Opportunistic networking; Content delivery networks; Applications; Prototypes and simulations; Implementations; Comparative performance analysis; Dependability, resilience and availability; Benchmarking and optimization; Quality of experience; Security, trust and reputation; Digital rights management; Content filtering; P2P and wireless convergence; Integrated approaches; Energy efficiency

Advances in Mesh Networks

Architectures and algorithms; Wireless interference models; Large-scale networks; Real-time and non-real-time communications; Centralized and distributed scheduling; Service differentiation; Security, Privacy, and Trust; Protocol interference models; Single-channel multihop/multichannel routing; Quality of Services routing; Multimedia-centric routing; Cross-layer multicast routing; QoS-based access protocols for mesh networks; Multichannel access protocols; Applications; Multimedia services; Home IPTV; WiMax; Broadband home networking communications; Smart buildings; Broadband Internet access

Vehicular networks

Communication technologies in vehicular networks; Frameworks and architectures for vehicular networks; Interoperability with Internet and other networks; Vehicle-infrastructure communications; Vehicle-to-vehicle communications; Emerging inter/intra-vehicle and infrastructure-to-vehicle wireless technologies; Cross-layer design and optimization for vehicular networks; Middleware and service architectures for vehicular networks; Propagation issues Vehicular sensors and data collection and process; On-drive diagnostics and repair technologies and systems; Protocol features /MAC, QoS, routing, multicast, addressing, identity/; Mobility and hand-off ; Properties /security, privacy, performance, robustness, real-time, etc./; Control and management in vehicular networks; Driver-oriented support systems /assistance, active&passive safety, etc./; Case studies and fields trials on vehicular networks; Applications across vehicular networks /content distribution, alerting, etc./; Standardization /802.11p, DSRC, etc./ and standard platforms /JasPar, AUTOSTAR, etc./

Radio-frequency identification systems

Fundamentals for RFID systems; Communications in RFID systems; Next generation RFID Technologies; RFID middleware design and architecture; Antenna design for RFID; System design and deployment; Circuits and architecture; RFID ans sensor networks; Bridging RFID networks in heterogeneous networks; Collision, proximity, speed; Security, privacy, trust; Monitoring and control of RFID systems; Localization and tracking; Inventory tracking; Testing and verification; Planing and executing RFID systems; RFID pilot projects; Use cases in deploying and operating /finance, manufacture, agriculture, transportation, etc./; Tools for supporting the design and deployment of RFID systems

Security systems

Security analysis methodologies; Middleware and distributed systems security; Cryptography, certificates, information hiding, access control; Protection, risk, vulnerabilities, attacks, authorization/authentication; Access control, wireless access control, broadband access control; Biometrics, smart cards, identification and trust methodologies; Certification, accreditation anonymity, and audit; Security management, emergency contingency planning, identify theft, life safety; Wireless and mobile security; Fast security associations; Electronic surveillance and e-commerce protocols; Security and trust in web-services-based applications; Peer-to-peer security, denial of services; Information survivability, insider threat protection, integrity; Intellectual property rights, privacy, legal and regulatory issues; Criminal exploitation of technology; Commercial and industrial security; Viruses, hackers, worms, spam, and other malicious code

Multimedia communications systems

Technologies, protocols, and mechanisms for multimedia communications; Multimedia compression mechanisms and information representation; Multimedia encoding and compression, MPEG-1 to MPEG-4, Wavelet and fractal; Multimedia frameworks, communications, and middleware; Next generation multimedia communications; Mobile multimedia communications; Methodologies and development tools for multimedia communications systems; Wireless mobile multimedia communications; Ad hoc multimedia networks; IP-based Multimedia Subsystems (IMS); QoS/SLA in mobile multimedia services and applications; Mechanisms for interactive multimedia applications; Designing and implementing interactive applications; Multimedia authoring, publishing, and right securing; Security and performance for multimedia communications; Management, QoS, and security aspects in streaming over wireless ad hoc networks; Management and control of multimedia systems; Standards protocols for multimedia communications

Policy-based systems

Policy for automation control; Trusting policy control commands; Policy-driven autonomic organizations; Policy-based control scalability; Policy sensors for feedback control; Policy conflict detection and conflict resolution; Context-aware policy-driven adaptive frameworks; Policy integrity, trust and negotiations; Policy-based software applications; Policing pervasive computing environments; Policing on-demand systems and services

Pervasive education system

Learning and teaching systems; E-learning methods and e-learning scenarios; Tools and architectures for mobile/ubiquitous e-learning; Cooperative learning and working; Mobile technology and education; Distance learning and education; Computers and arts; Education in developing regions; Reflection in learning software and hardware; Social impact metrics on distance learning; Methodologies and processes for education; Curriculum projects and experiences; Intelligent support; Multimedia environment for teaching; E-market place for higher education; Embedded systems education; Wearable computers and education

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