8th International Conference on the Network of the Future

November 22 – 24, 2017
London, UK

NoF 2017 London

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Welcome Message from the Organizing Committee

It is our great pleasure to welcome you to the 8th edition of NoF - the International Conference on the Network of the Future - in London, United Kingdom.

Since its creation in 2010, NoF has become, over the years, a well-established forum for scientists of both industry and academy who have interest in the evolution of telecommunication networks and the Internet architecture. The aim of the conference is to bring together people from various disciplines, ranging from the communications protocol design and experimentation field to the network management, optimization and analytics.

Recent years open a new era for networked and connected societies demonstrating unprecedented applications of mobile and Internet connections in city planning, healthcare, entertainment, and education. A rich set of new challenges has been identified through the emergence of virtualization techniques and network softwarization, leading to advances in mobile networks, network data analytics and network management. This trend is nicely reflected in the technical program of NoF 2017 with three specific keynotes from internationally recognized experts, two tutorials and six plenary technical sessions that address new research and application challenges regarding the networks of the future.

The technical program also comprises a prospective panel on the future of IP, accompanied by lightening talks by six esteemed colleagues very active in shaping future network architectures. The technical program features 22 plenary presentations selected out of 53 submissions. In addition, thirteen short papers are presented in the form of posters or technical demonstrations. Due to the willingness to run a plenary single-track conference with enough time for Q&A, no invited papers or special sessions were planned. We do believe that the whole program is able to trigger fruitful exchange of ideas and experience.

We would like to first thank all the authors who submitted papers for presentation of their research contributions. We are also indebted to the TPC members and additional reviewers who have significantly contributed to the quality of the scientific program through the selection process. We are very grateful to the Keynote Speakers, the Tutorial Speakers and the Panel Members who are making the technical program even more attractive. In the year 2017, when connectivity is becoming an inseparable part of many, what a better place to organize NoF than in KCL, in central London? The three building standing in three corners of Strand and Aldwych have witnessed historical moments in radio transmission and became indeed one of the most inspiring for the development of radio and wireless communications. The Marconi house is the home to first radio programmes from the London Broadcasting Station. The Bush house, now KCL's home, is where BBC broadcast their radio programmes during the II World war. Finally, King's building, the original building of KCL since its foundation in 1829, has observed development of fundamentals of wireless communication. James Clerk Maxwell worked on his electromagnetic equations during his time as an academic here in 1860s and set the base for today's wireless communication. Researchers and academic at KCL have continued the tradition to today, having strong footprint in the development of new generation of Internet and 5G mobile and wireless communication. The KCL campus today is designed for a cross-faculty environment with engineers and scientist working along artist and designers, lawyers, and economist, and the entrepreneurs.

On behalf of the Organizing Committee, we hope that you will enjoy NoF 2017 and the numerous attractions of London.

8TH INTERNATIONAL CONFERENCE ON THE NETWORK OF THE FUTURE

NoF'17

NOVEMBER 22 - 24, 2017
LONDON, UNITED KINGDOM

Technical Program

	Wednesday November 22	Thursday November 23	Friday November 24
Morning	9:30 - 10:00 Opening & Welcome	9:00 - 10:00 Keynote speech 3 **Erol Gelenbe** Imperial College London, United Kingdom	9:00 – 10 :40 Technical session 5 " Network Security"
	10:00 - 11:00 Keynote Speech 1 **Mischa Dohler** King's College London, United Kingdom	10 :00 – 11 :30 Tutorial 1 **Muhammad Zeeshan Shakir** University of the West of Scotland, UK	
	11 :00 – 12 :40 Technical session 1 "Cloud and Media Stream"	10:30 - 11:50 Coffee break	10:40 - 11:10 Coffee break
	12 :40 – 14 :00 Lunch Break	11:50 - 13:05 Technical session 4 "4G, 5G and beyond"	11 :10 – 12 :40 Tutorial 2 **Fabrizio Granelli** University of Trento, Italy
	14 :00 – 15 :00 Keynote Speech 2 **Marco Fiore** National Research Council of Italy	13 :05 – 14 :30 Lunch Break	12:40 - 14:00 Lunch Break
	15 :00 – 16 :15 Technical session 2 "Routing, Traffic Engineering and Quality of Service"	14 :30 – 17 :00 Panel	14:00 - 15:30 Demo & Poster Session
	16:15 – 16 :45 Coffee Break		
	16 :45 – 18:25 Technical session 3 "Network architectures and protocols"		15 :30 – 17:10 Technical session 6 "Physical Layer"
Afternoon			
Evening	**19:00 - 21:00** Welcome Reception **Bush House**	**19:00 Gala Dinner**	**17:10 - 17:30** Best Paper Awards Announcement and Closing

For more information visit www.network-of-the-future.org

NoF 2017 Keynotes & Tutorial Speakers

Mischa Dohler
Director, Centre for Telecom Research
Chair Professor, King's College London
"Internet of Skills -Time to Disrupt Cellular"

Misha Dohler full Professor in Wireless Communications at King's College London, driving cross-disciplinary research and innovation in technology, sciences and arts. He is the Director of the Centre for Telecommunications Research, co-founder of the pioneering smart city company Worldsensing, Fellow of the IEEE and the Royal Society of Arts (RSA), and a Distinguished Member of Harvard Square Leaders Excellence.

He is a frequent keynote, panel and tutorial speaker, and has received numerous awards. He has pioneered several research fields, contributed to numerous wireless broadband, IoT/M2M and cyber security standards, holds a dozen patents, organized and chaired numerous conferences, was the Editor-in-Chief of two journals, has more than 200 highly-cited publications, and authored several books.

He acts as policy, technology and entrepreneurship adviser, examples being Richard Branson's Carbon War Room, former Minister David Willetts' 8 Great Technology Fund, UK Regulator Ofcom, UK Ministries, EPSRC ICT Strategy Advisory Team, European Commission, Tech London Advocate, ISO Smart City working group, and various start-ups.

He is also an entrepreneur; composer & pianist with 5 albums on iTunes and an artist-verified Spotify account; as well as fluent in 6 languages. He has talked twice at TEDx. He had coverage by national and international TV & radio, and his contributions have featured on the BBC, the Wall Street Journal and many others.

Marco Fiore
Researcher, National Research Council of Italy
"Hidden Structures in Mobile Network Traffic"

Marco Fiore is a researcher at CNR - IEIIT, Italy. He received MSc degrees from University of Illinois at Chicago, IL, USA, and Politecnico of Torino, Italy, a PhD degree from Politecnico di Torino, Italy, and a Habilitation a Diriger des Recherches (HDR) from Universite de Lyon, France. He held positions as Maitre de Conferences (Associate Professor) at Institut National des Sciences Appliquees (INSA) de Lyon, France, Associate Researcher at Inria, France, visiting research fellow at Rice University, TX, USA, and Universitat Politecnica de Catalunya (UPC), Spain, and a visiting research fellow at University College London (UCL), UK.

Erol Gelenbe
Head of ISN, Electrical Engineering department
Imperial College London, UK.
"Stable Networks of the Future"

Erol Gelenbe was born in Turkey and received his PhD in the USA. During the period 1973-93, he was a Research Director at INRIA and founded the performance modelling and evaluation groups, and held professorships at Universities of Liege (Belgium), Paris-Sud (Orsay) and Paris V.Â He has invented new mathematical models such as the Random Neural Networks and G-Networks, and the machine learning based routing protocol CPN. He initiated, or contributed to, commercial developments such as the SYCOMORE Voice-packet switch, the XANTHOS fibre-optics local area network, the QNAP, FLEXSIM and C2Agents simulation/modelling packages. After 1993, he held professorships at New Jersey Institute of Technology, Duke University and University of Central Florida. Since 2003, he is the "Dennis Gabor Professor" at Imperial College. Having graduated over 74 PhDs, including 17 women, 47 of his former PhD students work in Europe. Fellow of ACM and IEEE, he was awarded Chevalier de la Legion d'honneur (FR), Officier du Merite (FR), Commendatore al Merito (IT), Grand Prix France Telecom (French Academy of Sciences), ACM SIGMETRICS Life-Time Achievement Award, Denis Gabor Award (Hungarian Academy of Sciences), Oliver Lodge Medal (IET, UK), and three "doctorates honoris causa". He was elected Fellow of the National Academy of Technologies (FR), the Royal Academy of Belgium, and the Science Academies of Hungary, Poland and Turkey.

Muhammad Zeeshan Shakir
University of the West of Scotland, United Kingdom
"Networked-Flying Platforms: Paving the Way Towards 5G and Beyond Access and Backhaul Wireless Networks"

Muhammad Zeeshan Shakir is an Assistant Professor at the University of the West of Scotland (UWS), UK. Before joining UWS in Fall 2016, he has been working at Carleton University, Canada, Texas A&M University, Qatar and KAUST, Saudi Arabia on various national and international collaborative projects. Most of his research has been supported by industry partners such as Huawei, TELUS and sponsored by local funding agencies such as Natural Sciences and Engineering Research Council of Canada (NSERC), Qatar National Research Fund (QNRF) and KAUST Global Research Fund (GCR). His research interests include design, development and deployment of diverse wireless communication systems, including hyper-dense heterogeneous small cell networks, Green networks and 5G technologies such as D2D communications, Networked-flying platforms (NFPs) and IoT. He has published more than 75 technical journal and conference papers and has contributed to 7 books, all in reputable venues. He is an editor of 2 research monographs and an author of a book entitled Green Heterogeneous Wireless Networks published jointly by Wiley and IEEE Press. He has been/is serving as a Chair/Co-Chair/Member of several workshops/special sessions and technical program committee of different IEEE flagship conferences, including Globecom, ICC, VTC and WCNC. He is an Associate Technical Editor of IEEE Communications Magazine and has served as a lead Guest Editor/Guest Editor for IEEE Communications Magazine, IEEE Wireless Communications and IEEE Access. He is serving as a Chair of IEEE ComSoc emerging technical committee on backhaul/fronthaul networking and communications. He is a Senior Member of IEEE, an active member of IEEE ComSoc and IEEE Standard Association.

Fabrizio Granelli,
University of Trento, Italy.
"Virtualization in 5G Systems"

Fabrizio Granelli is Associate Professor at the Dept. of Information Engineering and Computer Science (DISI) of the University of Trento (Italy) and IEEE ComSoc Director for Online Content. From 2012 to 2014, he was Italian Master School Coordinator in the framework of the European Institute of Innovation and Technology ICT Labs Consortium. He is member of the Executive Committee of the Trentino Wireless and Optical Testbed Lab. Prof. Granelli was the Dean of Education of the DISI Department for the period 2015-2017, and coordinator of the research and didactical activities on computer networks within the degree in Telecommunications Engineering. He was advisor of more than 80 B.Sc. and M.Sc. theses and 8 Ph.D. theses. He was IEEE ComSoc Distinguished Lecturer for 2012-15 and Visiting Professor at the State University of Campinas (SP, Brazil) and at The University of Tokyo (Japan).

He is author or co-author of more than 170 papers published in international journals, books and conferences in networking, with particular reference to performance modeling, cross-layering, wireless networks, cognitive radios and networks, green networking and smart grid communications.

Wednesday, November 22

8:30 - 9:30 Registration

9:30 - 10:00 Opening & Welcome

10:00 - 11:00 Keynote Speaker I

Session chair: Toktam Mahmoodi, King's College London, UK

Internet of Skills – Time to Disrupt Cellular
Mischa Dohler, King's College London, United Kingdom

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11 :00 – 12 :40 Technical Session 1: "Cloud and Media Stream"
Session chair: Toktam Mahmoodi, King's College London, UK

Improving QoE Prediction in Mobile Video through Machine Learning
Pedro Casas (Austrian Institute of Technology (AIT), Austria); Sarah Wassermann (Université de Liège, Belgium)

Design of A Layer-based Video Streaming System over Software-Defined Networks
Reza Shokri Kalan (Ege University- Turkey, Turkey); Cihat Cetinkaya and Muge Sayit (Ege University, Turkey)

Media Streams Allocation and Load Patterns for a WebRTC Cloud Architecture
Vamis Xhagjika (TokBox Inc., Spain); Òscar Divorra (TokBox Inc. a Telefonica Company, Spain); Leandro Navarro (Universitat Politècnica de Catalunya, Spain); Vladimir Vlassov (KTH Royal Institute of Technology, Sweden)

Distributed Processing in Vehicular Cloud Networks
Amal Alahmadi, Ahmed Lawey, and Jaafar Elmirghani (University of Leeds, United Kingdom)

14:00 - 15:00 Keynote Speaker II
Session chair : Stefano Secci, UPMC, France

Hidden Structures in Mobile Network Traffic

Marco Fiore, National Research Council of Italy

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15 :00 – 16 :15 Technical Session 2: "Routing, Traffic Engineering and Quality of Service"
Session chair: Antonio Cianfrani, University of Rome I - La Sapienza, Italy.

How does imposing free roaming in EU impact users and ISPs' relations?
Patrick Maillé (IMT Atlantique, France); Bruno Tuffin (Inria Rennes - Bretagne Atlantique, France).

On Packet Loss Modeling: an Empirical Assessment
Alfonso Iacovazzi and Daniel Frassinelli (Singapore University of Technology and Design, Singapore); Yuval Elovici (Ben Gurion University, Israel).

Power Allocation Optimization as the Multiple Knapsack Problem with Assignment Restrictions
Naoyuki Morimoto (Mie University, Japan)

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16 :45 – 18 :45 Technical Session 3: "Network architectures and protocols"
Session chair: Marinos Charalambides, University College London, UK.

Proactive Admission Control and Dynamic Resource Management in SDN-based Virtualized Networks
Sara Shakeri (Sharif University of Technology, Iran); Saeedeh Parsaeefard (Iran Telecommunications Research Center, Iran); Mahsa Derakhshani (Loughborough University, United Kingdom)

Intelligent network management mechanisms as a step towards 5G
Anne-Marie C. Bosneag (Ericsson Ireland Research Centre, Ireland); MingXue Wang (Ericsson, Ireland)

A New Method For Encoding MPLS Segment Routing TE Paths
Guedrez Rabah (Télécom Bretagne & Orange Labs, France); Olivier D. Dugeon (Orange Labs & France Telecom, France); Geraldine Texier (IRISA/IMT Atlantique & BCOM, France); Samer Lahoud (ESIB, Saint-Joseph University of Beirut, Lebanon)

On the move with TCP in current and future mobile networks
Eneko Atxutegi (University of the Basque Country, Spain); Karl-Johan Grinnemo (Karlstad University, Sweden); Andoni Izurza (University of the Basque Country (UPV/EHU), Spain); Åke Arvidsson (Kristianstad University, Sweden); Fidel Liberal (University of the Basque Country, Spain); Anna Brunstrom (Karlstad University, Sweden)

19:00 – 21:00 – Welcome Reception

8th floor terrace of King's College Bush House

Thursday, November 23

9:00 - 10:00 Keynote Speaker III

Session chair:

Stable Networks of the Future

Erol Gelenbe, Imperial College London, United Kingdom

10:00 - 11:30 Tutorial Speaker I

Session chair: Daphne Tuncer, University College London, UK

Networked-Flying Platforms: Paving the Way Towards 5G and Beyond Access and Backhaul Wireless Networks

Muhammad Zeeshan Shakir, Univ. of the West of Scotland, UK

11 :50 – 13 :05 Technical Session 4: " 4G, 5G and beyond" Session chair: Anne-Marie C. Bosneag, Ericsson Ireland Research Centre, Ireland.

Prediction of Active UE Number with Bayesian Neural Networks for Self-Organizing LTE Networks
Omer Narmanlioglu (P. I. Works & Ozyegin University, Turkey); Engin Zeydan (Türk Telekom Labs, Turkey); Melih Kandemir (Heidelberg University, Germany); Tarik Yakup Kranda (P. I. Works & Istanbul University, Turkey)

Future Scenarios and Value Network Configurations for Industrial 5G
Singh Walia and Heikki Hämmäinen (Aalto University, Finland); Hannu Flinck (Nokia Bell Labs, Finland).

Evolution of Home Energy Management and Smart Metering Communications towards 5G
Mehdi Zeinali (The University of Edinburgh, United Kingdom); John Thompson (University of Edinburgh, United Kingdom); Chadi Khirallah and Neeraj Gupta (NEC, United Kingdom)

14:30 - 17:00 Panel

Will IP support the networks of the future or do we need something better or different?

The TCP/IP protocol was developed in the 1970's much before the internet and web became ubiquitous in the 2000's and before the dominance of multimedia applications. When TCP/IP was developed, only text and data traffic was anticipated and was optimized as such. The question for the Internet community today is if those protocols are adequate to meeting the new requirements of thepresent day applications. This trend is only going to gain more momentum with the arrival of 5G networks. Consequently, in this session we debate and attempt to reach a consensus on whether we should continue the status quo, make incremental improvements, or start with a clean slate to develop entirely new set of protocols.

Panel Speakers

Jaafar Elmirghani, University of Leeds, UK.
Prof. Jaafar Elmirghani is a Fellow of the IET, Fellow of the Institute of Physics and is the Director of the Institute of Communication and Power Networks and Professor of Communication Networks and Systems within the School of Electronic and Electrical Engineering, University of Leeds, UK.
He joined Leeds in 2007 having been chair in optical communications at the University of Wales Swansea 2000-2007. He received the BSc in Electrical Engineering, First Class Honours from the University of Khartoum in 1989 and was awarded all 4 prizes in the department for academic distinction. He received the PhD in the synchronization of optical systems and optical receiver design from the University of Huddersfield UK in 1994 and the DSc in Communication Systems and Networks from University of Leeds, UK, in 2014. He co-authored Photonic switching Technology: Systems and Networks, (Wiley) and has published over 450 papers

Josef Noll, University of Oslo, Norway,
Josef Noll is professor at the University of Oslo and Visionary at the Basic Internet Foundation. He envisions a world with free access to basic information (#Basic4all). He is specialist for Wireless Networks and Security. The group concentrates on the working areas mobile-based trust and authentication, personalised and context-aware service provisioning, and measurable security for the Internet of Things (IoT). He is also Head of Research in Movation, Norway's open innovation company for mobile services. He is co-founder and steering board member of the Center for Wireless Innovation Norway and Mobile Monday Norway, the Norway section of the worldwide community for nerds and professionals in mobile services.
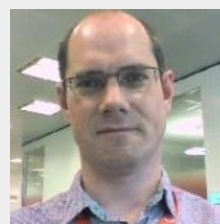
Kevin Smith, Vodafone, UK.
Mr. Kevin Smith has been an Executive General Manager of Fixed Communications at Service Stream Limited since June 2014 and served as its Acting Executive General Manager of Fixed Communications since June 12, 2014 until October 2014. Mr. Smith is a management professional with 20 years' experience in the telecommunications industry supporting Australia's main telecommunication carriers NBN Co, Telstra, Optus, Vodafone and Primus.

William Webb, University of Cambridge, UK
William is an independent consultant at Webb Search and CEO of the Weightless SIG, a body standardizing a new M2M technology. He was one of the founding directors of Neul, a company developing machine-to-machine technologies and networks, which was formed at the start of 2011 and subsequently sold to Huawei. Prior to this William was a Director at Ofcom where he managed a team providing technical advice and performing research. He has worked for a range of communications consultancies and spent three years providing strategic management across Motorola's entire communications portfolio, based in Chicago. He was IET President 2014-2015.
William has published 15 books, 100 papers, and 18 patents. He is a Visiting Professor at Surrey, Southampton and Trinity College Dublin Universities, a Fellow of the Royal Academy of Engineering, the IEEE and the IET. He has been awarded multiple honorary doctorates by the UK's leading universities.

Panel Moderators

Sudhir Dixit.
Sudhir Dixit is a Senior Fellow and Evangelist of Basic Internet at the Basic Internet Foundation in Norway and is based in the San Francisco Bay Ãjrea. He is a Board Member & Working Group Chair at the Wireless World Research Forum (WWRF). From December 2013 to April 2015, he was a Distinguished Chief Technologist and CTO of the Communications and Media Services for the Americas Region of Hewlett-Packard Enterprise Services in Palo Alto, CA, and prior to this he was the Director of Hewlett-Packard Labs India from September 2009. From June 2009 to August 2009, he was Director of HP Labs India in Palo Alto and Bangalore.

Before joining HP, he worked in various leadership roles at BlackBerry (Senior Director) , Nokia (Head of NRC, Boston), NSN (Head of Network Technology USA) and Verizon Communications (Staff Director and Principal Scientist). Sudhir Dixit has 21 patents granted by the US PTO and has published over 200 papers and edited, co-edited, or authored eight books by Wiley, Springer and Artech House. He has been a technical editor of IEEE Communications Magazine, and is presently on the editorial boards of IEEE Spectrum Magazine, Cambridge University Press Wireless Series and Springer's Wireless Personal Communications Journal. He has served as General Chair, TPC Chair and Steering Committee Chair in numerous coferences. From 2010 to 2012, he was an Adjunct Professor of Computer Science at the University of California, Davis, and, since 2010, he has been a Docent of Broadband Mobile Communications for Emerging Economies at the University of Oulu, Finland. A Life Fellow of the IEEE, Fellow of IET and IETE, Dixit holds a Ph.D. from the University of Strathclyde, Glasgow, U.K. and an M.B.A. from the Florida Institute of Technology, Melbourne, Florida.
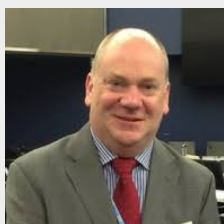
Nigel Jefferies
Nigel Jefferies is a senior standards manager with Huawei Technologies and Chairman of the Wireless World Research Forum, a global partnership between industry and academia to develop a research agenda for mobile communications. Previously he was Head of Academic Relationships within Vodafone Group Research & Development and a Principal Mathematician at Racal Research Ltd.

In the past he led the European-funded IST project SHAMAN, which studied the security of future mobile systems, and ran the Secure Applications Steering Group for Mobile VCE. Other collaborative research projects on various aspects of security for mobile communications include 3GS3 in the UK-funded LINK programme, and ASPeCT and USECA in the European ACTS programme. His research interests include cryptography, security of systems and applications of mathematics to telecommunications. He received a PhD in functional analysis from Goldsmith's College, London, and an MA in mathematics from the Queen's College, Oxford. He is a Senior Member of the IEEE, a Fellow of the Institute of Mathematics and its Applications and a Chartered Mathematician.

19:00 Gala Dinner
Wonderful stroll on a ferry travelling along the Thames from embankment pier to Greenwich and back, passing through major London landmarks such as Tower bridge and Tower of London.

Friday, November 24

9 :00 – 10 :40 Technical Session 5: "Network Security"
Session chair: Alfonso Iacovazzi, Singapore Univ. of Technology and Design, Singapore.

A Policy-Based Identity Management Schema for Managing Accesses in Clouds
Faraz Fatemi Moghaddam (GWDG - Georg-August-Universität Göttingen, Germany); Philipp Wieder (TU Dortmund University, Germany); Ramin Yahyapour (GWDG - University Göttingen, Germany)

A Multi-Layered Access Policy Engine for Reliable Cloud Computing
Faraz Fatemi Moghaddam (GWDG - Georg-August-Universität Göttingen, Germany); Philipp Wieder (TU Dortmund University, Germany); Ramin Yahyapour (GWDG - University Göttingen, Germany)

Autonomous and Distributed Internet Security (AIS) Infrastructure for Safe Internet
Hiroyuki Kimiyama, Naoki Yonezaki, Tsutsumi Tomoaki, Kaori Sano, Hirofumi Yamaki, Yoichiro Ueno, Ryoichi Sasaki, and Hiroshi Kobayashi (Tokyo Denki University, Japan)

EnCIRCLE: Encryption-based Access Control for Information-Centric Connected Vehicles
Dennis Grewe (Robert Bosch GmbH, Germany); Pavithra Rao Kasargod Pattanshetty (Porsche Engineering, Germany); Sebastian Schildt (TU Braunschweig, Germany); Marco Wagner (Robert Bosch GmbH, Germany); Dominik Schoop (Esslingen University of Applied Sciences, Germany); Hannes Frey (Universität Koblenz-Landau, Germany)

11:10 - 12:40 Tutorial Speaker II

Session chair: Stefano Secci, Sorbonne UPMC, France

Virtualization in 5G Systems

Fabrizio Granelli, University of Trento, Italy

14 :00 – 15 :30 Demo & Poster Session
Session chair: Maria Lema, King's College London, UK.

Control and Management of a Connected Car Using YANG/RESTCONF and Cloud Computing
Ricard Vilalta (CTTC/CERCA, Spain); Selva Via (CTTC, Spain); Fermin Mira Perez (Centre Tecnologic de Telecomunicacions de Catalunya, Spain); Luis Sanabria (CTTC/CERCA, Spain); Ricardo Martinez, Ramon Casellas and Raul Muñoz (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC/CERCA), Spain); Jesus Alonso-Zarate (Centre Tecnologic de Telecomunicacions de Catalunya - CTTC, Spain)

Demonstrating State-based Security Protection Mechanisms in Software Defined Networks
Thianantha Arumugam and Sandra Scott-Hayward (Queen's University Belfast, United Kingdom)

Friday, November 24

14 :00 – 15 :30 Demo & Poster Session

Deploying ICN islands in a Sea of IP - the Role of Interconnection and Business Models
Pieter Nooren, Niels van Adrichem, and Lucia D'Acunto (TNO, The Netherlands)

In-Network Data Aggregation in ICN
Bastiaan Wissingh, Lucia D'Acunto, and Konstantinos Trichias (TNO, The Netherlands)

CUSUM-based and Entropy-based Network Anomaly Detection: an Experimental Comparison
Christian Callegari (RaSS National Laboratory - CNIT and University of Pisa, Italy); Stefano Giordano, Michele Pagano and Fabrizio Berizzi (University of Pisa, Italy)

Standardization for Evaluating Software-Defined Networking Controllers
Emerson Remigio Silva, Patricia Takako Endo, and Edison Queiroz Albuquerque (Universidade de Pernambuco)

Effects of Port Congestion in the Gate Control List Scheduling of Time Sensitive Networks
Angelos Mimidis Kentis (DTU, Denmark); Michael S. Berger, and Jose Soler (Technical University of Denmark, Denmark)

QoS Guarantee over Hybrid SDN/non-SDN Networks
Ola Salman, Imad H. Elhajj, Ali Chehab, and Ayman Kayssi (American University of Beirut, Lebanon)

A Performance Comparison Platform of Mobile Network Operators
Ibrahim Onuralp Yigit (Türk Telekom Labs, Turkey); Gokhan Ayhan, Engin Zeydan, Feyzullah Kalyoncu, and Çağrı Etemoğlu (Türk Telekom Labs, Turkey)

Real-life C-RAN deployment considerations
Line M. P. Hansen, Sarah Ruepp, and Henrik Christiansen (Technical University of Denmark, Denmark)

Service Orchestration leveraging software networks and DevOps in 5G
George K .Xilouris, Stavros Kolometsos, and Michail Alexandros Kourtis (NCSR Demokritos, Greece); Felipe Vicens (ATOS, Spain); Christos Xilouris (NCSR Demokritos, Greece); Dario Valocchi (University College London, United Kingdom); Alberto Rocha (Altice Labs, Portugal); Luis Conceição (Ubiwhere, Portugal); Javier Fernandez Hidalgo (I2CAT, Greece); Muhammad Shuaib Siddiqui (Fundació i2CAT, Internet i Innovació Digital a Catalunya, Spain); Adel Zaalouk (NECLAB, Greece); Thomas Soenen (Ghent University - imec, Belgium); Josep Martrat (Atos, Spain)

A Simplified Path Loss Model for Investigating Diffraction and Specular Reflection Impact on Millimetre Wave Propagation
Rasha Al-Dabbagh (Brunel University London, United Kingdom); Nadia Al-Aboody (Brunel University, United Kingdom); Hamed Saffa Al-Raweshidy (University of Brunel, United Kingdom)

Empirical Performance Evaluation of FSO Availability under Different Weather Conditions
Nilupulee Anuradha Gunathilake and Muhammad Zeeshan Shakir (University of the West of Scotland, United Kingdom)

15:30 – 17:00 Technical Session 6: "Physical Layer "
Session chair: Maria Lema, King's College London, UK.

Quantum Encrypted Signals on Multiuser Optical Fiber Networks: Simulation Analysis of Next Generation Services and Technologies
Rameez Asif (Edinburgh Napier University & The Cyber Academy, United Kingdom)

Square Deviation Based Symbol-Level Selection for Virtual Full-Duplex Relaying Networks
Jiancao Hou and Sandeep Narayanan Kadan Veedu (King's College London, United Kingdom); Na Yi and Yi Ma (University of Surrey, United Kingdom); Mohammad Shikh-Bahaei (King's College London, United Kingdom)

A New Channel Selection Algorithm for the Weightless-N Frequency Hopping with Lower Collision Probability
Riyadh Abbas (University of Northampton & Wasit University, United Kingdom); Ali Al-Sherbaz (The University of Northampton & School of Science and Technology, United Kingdom); Abdeldjalil Bennecer (The University of Northampton, United Kingdom); Phil Picton (University of Northampton, United Kingdom)

Performance Analysis of Inband FD-D2D Communications with Imperfect SI cancellation for Wireless Video Distribution

Mansour Naslcheraghi and Seyed Ali Ghorashi (Shahid Beheshti University, Iran); Mohammad Shikh-Bahaei (King's College London, United Kingdom)

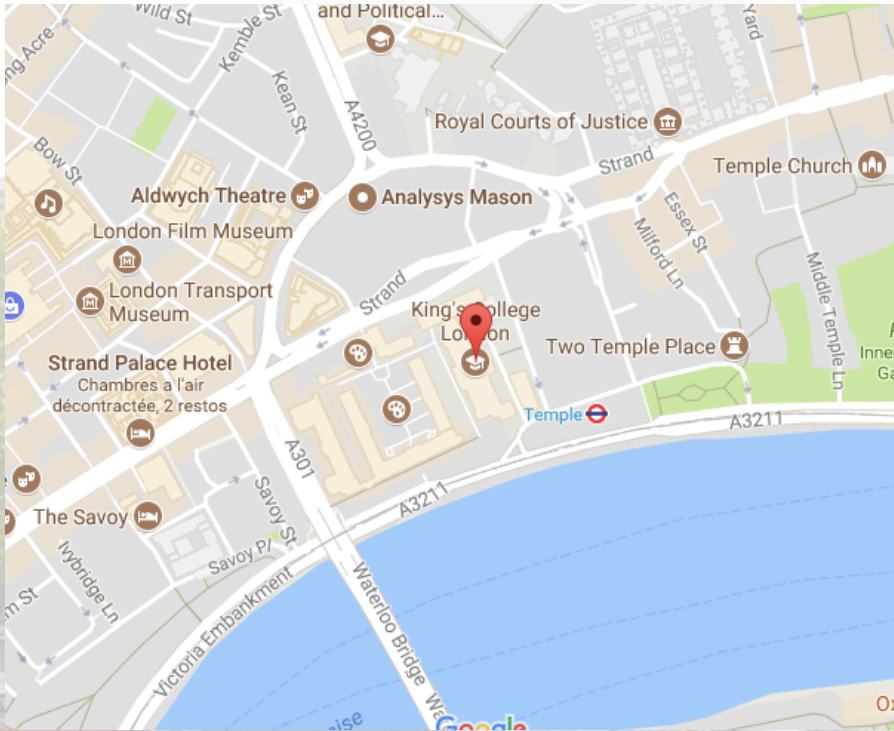### 17:00 – 17:30 Best Paper Awards Announcement and Closing

NoF 2017 Venue

NoF 2017 CONFERENCE LOCATION

King's College of London

Strand, London WC2R 2LS, UK

King's College London, located in Central London and arguably the most central university campus in the world. Various modern technology developments are pioneered at King's College London including development of electrochemical cells (i.e. batteries) by Jon Frederick Daniel and fundamental works of James Clerk Maxwell in development of wireless communications. The university campus is co-located with the very first site of radio broadcasting services of BBC, Bush house, and is neighbor to the historical Marconi house of the Wireless Telegraph & Signal Company founded by Guglielmo Marconi, later known as the Marconi Company. The campus also includes number of Victorian and Neoclassical buildings such as the Somerset house.

NoF 2017 CONFERENCE DINNER

The conference dinner will take place on Thursday, November 23, 2017 at :
THAMES LEISURE
River Thames London

About Thames Leisure

Thames Leisure along with sister company Topsail Events, have been operating vessels for corporate and public hire on the Thames for more than 25 years, with Topsail founder Mark Tower at the helm of our offices in London and Brighton.

They are the only Thames Charter business based firmly in the City of London, with fleet moored between London Bridge and Tower Bridge, using Tower Millennium Pier immediately outside of the Tower of London as her main embark and disembarkation point. they can however use most piers throughout the Thames.

Your notes

Your notes

Organizing Committee

General Chairs

Toktam Mahmoodi
King's College, UK

Stefano Secci
UPMC Sorbonne, France

Technical Program Chairs

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