



## 2<sup>nd</sup> Workshop on Non-Orthogonal Multiple Access Techniques for 5G

In conjunction with IEEE GLOBECOM 2017, Monday, 4 December 2017, Singapore

Workshop Organizers		Call for Papers
<b>General Chairs</b>	H. Vincent Poor (Princeton University, USA) Robert Schober (FAU, Germany)	<p>Future radio access networks are expected to have the capability to support: 1) massive connectivity and dramatically higher capacity; 2) diverse sets of users and applications with radically different requirements in terms of delay, bandwidth, etc.; and 3) flexible and efficient use of all available resources, such as spectrum and time. The above requirements, especially the need for massive connectivity and diverging latency, challenge the current cellular networks in many ways, particularly the available multiple access (MA) methods. As a result, significant efforts have been recently made to design more spectrally and energy efficient MA schemes for future wireless networks. A common feature of these newly designed MA schemes is the avoidance of the use of conventional orthogonal schemes, such as time division multiple access (TDMA) and frequency division multiple access (FDMA). Instead, users are encouraged to share their bandwidth resources opportunistically according to their diverse channel conditions and their quality of service requirements. The superior spectral efficiency of these non-orthogonal multiple access (NOMA) schemes has been demonstrated by recent theoretical and experimental studies.</p> <p>The <b>2<sup>nd</sup> Workshop on Non-Orthogonal Multiple Access Techniques for 5G</b> will take place during IEEE GLOBECOM 2017 in Singapore, on December 4, 2017. The workshop will provide a forum for brainstorming on the emerging NOMA techniques for 5G cellular networks. We aim to bring together the leading researchers in the field, both from academia and industry, to share their recent findings and their views on what access methods best suit the diverse requirements of next generation networks. Topics of interest include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• <i>Non-orthogonal multiple access via the power domain</i> <ul style="list-style-type: none"> <li>✓ Advanced coding and modulation for NOMA</li> <li>✓ MIMO techniques for NOMA</li> <li>✓ Multi-cell/massive MIMO NOMA</li> <li>✓ Security concerns for NOMA</li> <li>✓ Cross-layer design and optimization of NOMA</li> <li>✓ Hardware implementation issues in NOMA</li> </ul> </li> <li>• <i>Non-orthogonal multiple access via the code domain</i> <ul style="list-style-type: none"> <li>✓ Sparse code multiple access (SCMA)</li> <li>✓ Multi-user shared access (MUSA)</li> <li>✓ Lattice partition multiple access (LPMA)</li> <li>✓ Interleave division multiple access (IDMA)</li> </ul> </li> <li>• <i>Other multiple access protocols for</i> <ul style="list-style-type: none"> <li>✓ Massive MTC applications</li> <li>✓ Massive internet-of-things (IoT)</li> <li>✓ Vehicle-to-X (V2X) and satellite networks</li> </ul> </li> <li>• <i>Coexistence of NOMA and OFDMA</i></li> </ul>
<b>Program Chairs</b>	Mojtaba Vaezi (Princeton University, USA) Zhiguo Ding (Lancaster University, UK) George K. Karagiannidis (AUTH, Greece) Octavia A. Dobre (Memorial Univ., Canada)	
<b>TPC Members</b>		
<p>Biao He (University of California Irvine, USA) Byoungju Lee (Purdue University, USA) Caijun Zhong (Zhejiang University, China) Derrick Wing Kwan Ng (Univ. of New South Wales, Australia) Hai Lin (Osaka Prefecture University, Japan) Hazer Inaltekin (Princeton University) Hosein Nikopour (Intel Labs, USA) Hui-Ming Wang (Xi'an Jiaotong University, China) Jie Gong (Sun Yat-sen University, China) Kanapathippillai Cumanan (University of York, UK) Keivan Navaie (Lancaster University, UK) Li Xi (BUPT, China) Liu, Yuanwei (King's College London) Lu Lu (Chinese University of Hong Kong) Mahsa Derakhshani (Loughborough University, UK) Mahyar Shirvanimoghaddam (Univ. of Sydney, Australia) Mari Carmen Aguayo Torres (Universidad de Málaga, Spain) Md. Jahangir Hossain (UBC Okanagan, Canada) Namyoon Lee (POSTECH, Korea) Nan Yang (Australian National University, (Australia) Panagiotis Diamantoulakis (AUT, Greece) Peng Xu (BUPT, China) Sinem Coleri Ergen (Koc University, Turkey) Tao Han (University of North Carolina at Charlotte, USA) Wonjae Shin (Seoul National University) Xiang Cheng (Peking University, China) Yonghui Li (University of Sydney, Australia) Yongming Huang (Southeast University, China) Zheng Ma Southwest Jiaotong University, China) Zhi Chen (UEST, China) Zhiqing Qin (Imperial College London, UK) Zhongyuan Zhao (BUPT, China)</p>		
<b>Important Dates</b>		
<p><b>Full Paper Submission: July 1<sup>st</sup>, 2017</b>            Acceptance Notification: September 1<sup>st</sup>, 2017            Camera-Ready Submission: October 1<sup>st</sup>, 2017            Workshop Date: December 4<sup>th</sup>, 2017</p>		
<p>The workshop features two keynotes given by world leading researchers in the field and a panel discussion including researchers from industry and academia. Submitted papers should follow the IEEE GLOBECOM paper submission guidelines. Papers should be submitted for review through EDAS at <a href="https://edas.info/newPaper.php?c=23469&amp;track=85943">https://edas.info/newPaper.php?c=23469&amp;track=85943</a>. Accepted papers will be published in IEEE Xplore.</p>		