**Workshop: Machine Learning for 5G**  
(29 January 2018, Geneva, Switzerland)  
**Draft Programme**

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<tr>
<th>Time</th>
<th>Session</th>
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<td>08:30 – 12:00</td>
<td>Registration</td>
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<td>13:30 – 17:00</td>
<td>Welcome and Opening</td>
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| 09:30 – 09:40 | Welcome remarks: Chaesub Lee (Director, ITU Telecommunication Standardization Bureau)  
Opening remarks: Slawomir Stanczak (Fraunhofer HHI) |
| 09:40 – 11:20 | Session 1: Use Case and Applications  
Moderator: Slawomir Stanczak |
| 11:20 – 11:40 | Coffee Break                |
| 11:40 – 13:20 | Session 2: Challenges and Opportunities  
Moderator: Kim Mahler |

**Session 1: Use Case and Applications**

- Machine Learning for Decentralized and/or Flying Radio Devices – David Gesbert (Eurecom)  
- 5G for Automated Driving 2.0 – Ahmad El Assaad (VW)  
- Use cases and requirements of network intelligence – Yong-Geun Hong (ETRI)  
- AI Applications in telecommunication network – Cheng, Qiang (AIIA (CAICT))

**Session 2: Challenges and Opportunities**

- Some Thoughts on Machine Learning for Communications – Jakob Hoydis (Nokia)  
- Mobile AI: Challenges and Opportunities – Merouanne Debbah (Huawei)  
- Efficient Deep Learning in Communications – Wojciech Samek (Fraunhofer HHI)  
- Challenges of ML Usage for 5G Network Enhancement – Hamila Ridha (Qatar University)
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<td>13:20 – 14:20</td>
<td><strong>Lunch Break</strong></td>
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| 14:20 – 16:00 | **Session 3: Operations and Networks**  
Moderator: Wojciech Samek  
- Network Operations Intelligence – *Seongbok Baik (KT)*  
- A mobile operator perspective on Machine Learning – *Salih Ergut (Turkcell)*  
- AI promoting smart networks – *Meng Wei (ZTE)*  
- AI functionality options in 5G networks – *Heiko Lehmann (Deutsche Telekom)* |
| 16:00 – 16:20 | **Coffee Break**                                                          |
| 16:20 – 18:00 | **Session 4: Methods and Enablers**  
Moderator: Seongbok Baik  
- Machine Learning for 5G and Beyond: Towards Reliable and Efficient Reconstruction of Radio Maps – *Slawomir Stanczak (Fraunhofer HHI)*  
- Reinforcement learning for wireless network optimization – *Deniz Gunduz (Imperial College London)*  
- Using the information control networks (ICN) as a test area for searching for effective methods of machine learning in the networks of the future generation – *Viliam Sarian (NIIR - Russian Federation)*  
- Presentation by *Amazon Web Services* |
| 18:00 | **Wrap-up and Closing Session** |

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