Report on

IEEE Technical Talk Series 2021

Expert: Dr. Emil Bjornson

April 16th 2021

Title: MIMO Communication in 5G and Beyond

IEEE Signal Processing Society
Gujarat Section
Contents

1. Poster for the talk
2. Expert Profile
3. Glimpses of the talk
4. Memento Format
5. Number of Participants
IEEE Signal Processing Society Gujarat Chapter presents Expert Talk Series

Multiple-Input Multiple-Output (MIMO) technology plays a prominent role in Wi-Fi communications as well as 3G, 4G, and 5G networks

MIMO Communication in 5G and Beyond

April 16 2021 | 2 PM IST
Scan to Register

Dr. Emil Bjornson
Professor,
KTH Royal Institute of Technology, Sweden

(WebEx link will be sent to registered participants)

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**Expert Profile**

**Dr. Emil Björnson**  
**Professor, KTH Royal Institute of Technology, Sweden**

Expert Profile: Emil Björnson received the M.S. degree in engineering mathematics from Lund University, Sweden, in 2007, and the Ph.D. degree in telecommunications from the KTH Royal Institute of Technology, Sweden, in 2011. From 2012 to 2014, he held a joint post-doctoral position at the Alcatel-Lucent Chair on Flexible Radio, SUPELEC, France, and the KTH Royal Institute of Technology. He joined Linköping University, Sweden, in 2014, where he is currently an Associate Professor. In September 2020, he became a part time Visiting Full Professor at the KTH Royal Institute of Technology. He has authored the textbooks Optimal Resource Allocation in Coordinated Multi-Cell Systems (2013), Massive MIMO Networks: Spectral, Energy, and Hardware Efficiency (2017), and Foundations of User-Centric Cell-Free Massive MIMO (2021). He is dedicated to reproducible research and has made a large amount of simulation code publicly available. He performs research on MIMO communications, radio resource allocation, machine learning for communications, and energy efficiency. He has been on the Editorial Board of the IEEE Transactions on Communications since 2017. He has been a member of the Online Editorial Team of the IEEE Transactions on Wireless Communications since 2020. He has been an Area Editor in IEEE Signal Processing Magazine since 2021. He has performed MIMO research for over 14 years, his papers have received more than 12000 citations, and he has filed more than twenty patent applications. He is a host of the podcast Wireless Future and has a popular YouTube channel. He has received the 2014 Outstanding Young Researcher Award from IEEE ComSoc EMEA, the 2015 Ingvar Carlsson Award, the 2016 Best Ph.D. Award from EURASIP, the 2018 IEEE Marconi Prize Paper Award in Wireless Communications, the 2019 EURASIP Early Career Award, the 2019 IEEE Communications Society Fred W. Ellersick Prize, the 2019 IEEE Signal Processing Magazine Best Column Award,
the 2020 Pierre-Simon Laplace Early Career Technical Achievement Award, and the 2020 CTTC Early Achievement Award. He also coauthored papers that received Best Paper Awards at the conferences, including WCSP 2009, the IEEE CAMSAP 2011, the IEEE SAM 2014, the IEEE WCNC 2014, the IEEE ICC 2015, and WCSP 2017.

**Glimpses of the Talk**
**Memento Format**

**Number of Participants**

- **Total:** 222
- **IEEE Members:** 105
- **NON-IEEE Members:** 117

**Report Prepared by:** Prof. Arpan Desai