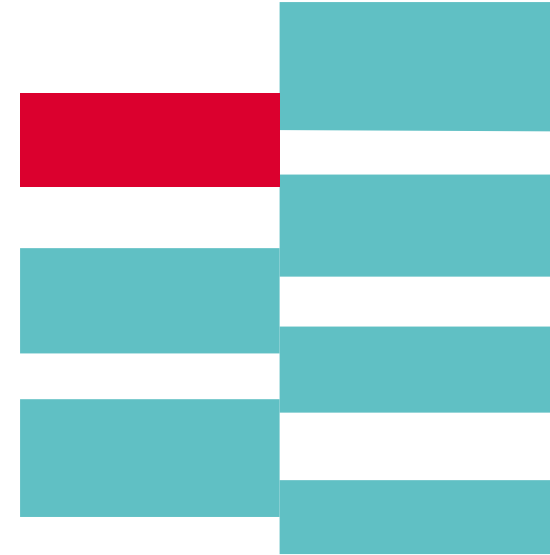




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TSDSI Tech Deep Dive 2023

Session-5: Open and Resilient by Design

6G-Thought to Reality

Dr. Samar Shailendra

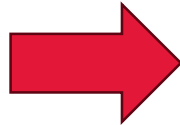
Senior Lecturer, MIT
Adjunct Professor, IIIT Bangalore

What is 6G?

Users and Applications

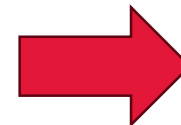
IMT-2030 Characteristics

- Inclusive
- Ubiquitous
- Sustainable
- Innovative
- Secure and Resilient
- Standardized
- Interoperable
- Interworking



Trends and Scenarios

- Ubiquitous Intelligence
- Ubiquitous Computing
- Ubiquitous Connectivity
- Immersive application
- Digital Twin
- Digital health
- Integrated sensing and Comms
- Sustainability

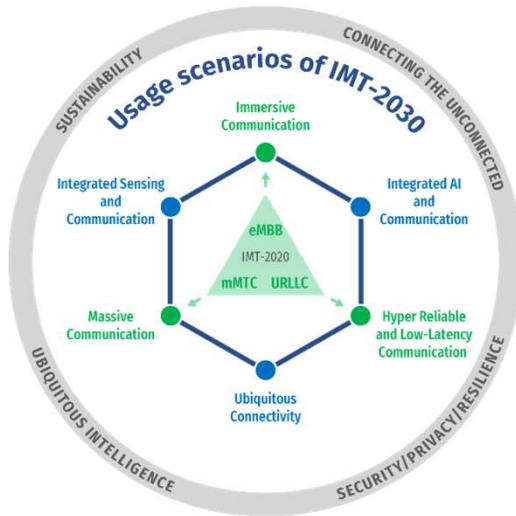


Technology Requirements

- Enhanced Radio Interface
- Enhanced Radio Network
- Enhanced Spectrum

IMT-2030 Usage Scenarios and Capabilities

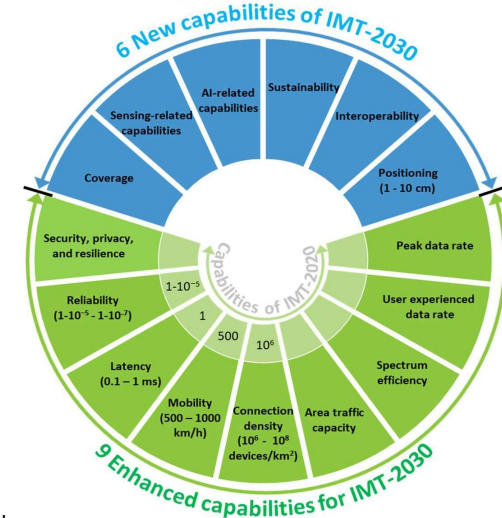
6G Features



What's New:

- [Ubiquitous Connectivity](#)
- [Integrated AI and Communication](#)
- [Integrated Sensing and Communication](#)

6G Capabilities to achieve Features



What's New:

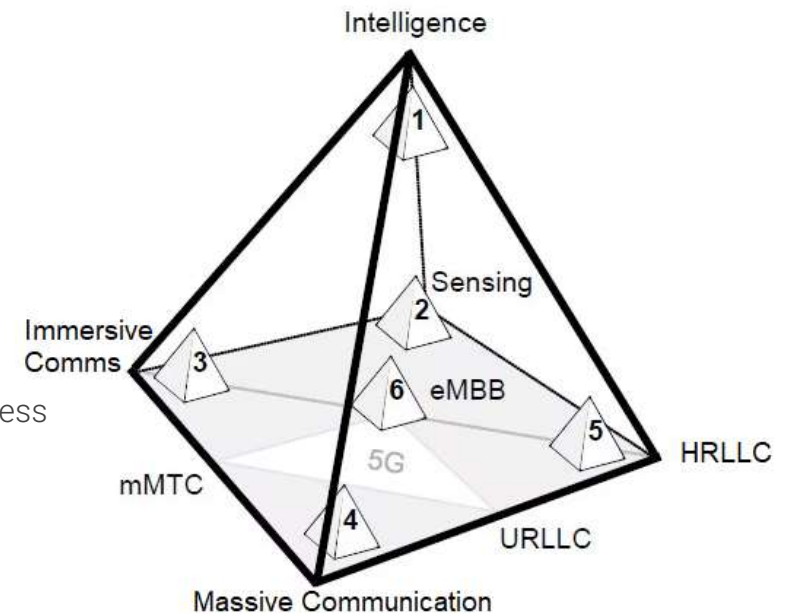
- [Interoperability](#)
- [Sustainability](#)
- [Coverage](#)
- Positioning
- AI-related capabilities
- Sensing related capabilities

6G – Way to Go

Open, Secure & Resilient

Ubiquitous, Data Driven, Secure, Sustainable

- User Owned Data Driven
 - Ownership of data lies with the user
- Software Driven Unified Network Access
 - Unification of terrestrial (cellular/non-cellular) and non-terrestrial access
- On Demand and Plug-n-Play
 - Unified support for all access technology
- Secure by Design
 - Security is not overlay rather embedded as part of design





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Thank You !!
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