Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)

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Source: Sebastian Rey, Technische Universität Braunschweig
Address: Schleinitzstr. 22, D-31806 Braunschweig, Germany
Voice: +49-531-391-2439, FAX: +49-531-391-5192, E-Mail: rey@ifn.ing.tu-bs.de

Abstract: Evaluation criteria are necessary for the development of the standard. This presentation gives some first thoughts on these criteria.

Purpose: Enabling the Discussion for Evaluation criteria.

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Some Thoughts on Evaluation Criteria

Sebastian Rey¹, Thomas Kürner¹

¹ Institut für Nachrichtentechnik, Technische Universität Braunschweig, Germany

General Thoughts

- Possibly more than one system is proposed for the standard.
- How do we decide which one (or which parts) are best suited for the standard?
- What are the figures of merit for...
 - ... achieved data rate (after subtraction of all the overhead)?
 SNR, BER, data rate, spectral efficiency
 - … complexity?
 - die area
 - … power consumption?
 - ... suitability of a feedback figure for beamsteering?
- And which of these shall be investigated here?

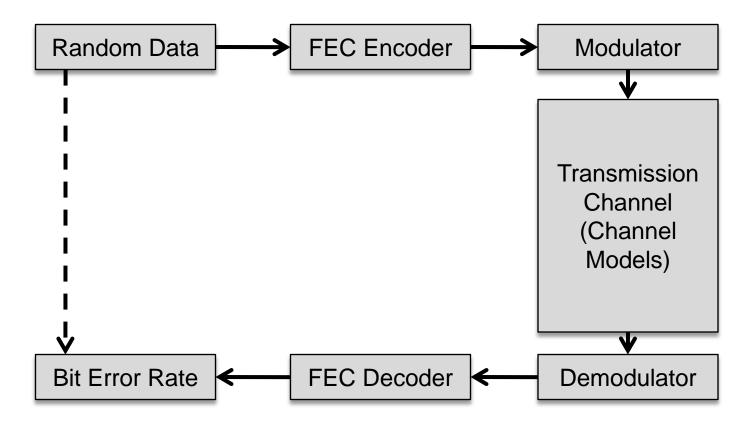
What do we have to deal with here?

From the PAR (IEEE 802.15-13-0523-07):

5.2.a. Scope of the complete standard: This project will define the PHY and MAC specifications for high data rate wireless connectivity with fixed, portable and moving devices. Data rates will be high enough to satisfy a set of consumer multimedia industry needs, and to support emerging wireless switched point-to-point applications.

5.4 Purpose: The purpose is to provide a standard for low complexity, low cost, low power consumption, and high data rate wireless connectivity among devices. Data rates will be high enough to satisfy a set of consumer multimedia industry needs, and to support emerging wireless switched point-to-point applications in data centers, wireless backhaul/fronthaul intra-device communication and kiosk downloading.

Link level simulations for data rate



• Equivalent baseband model

Danke für Ihre Aufmerksamkeit! (Thank you for paying attention!)

Dipl.-Ing. Sebastian Rey rey@ifn.ing.tu-bs.de