

Communication networks beyond the capacity crunch

Monday 11 – Tuesday 12 May 2015

Organised by Professor Andrew Ellis, Professor Sir David Payne CBE FREng FRS and Professor David Saad

THE
ROYAL
SOCIETY

DAY 1				DAY 2			
SESSION 1: Applications of communication Chair: David Payne CBE FREng FRS		SESSION 2: Obstacles Chair: David Saad		SESSION 3: Physical layer Chair: Fatima Garcia Gunning		SESSION 4: Potential future networks Chair: Andrew Ellis	
09:00	Welcome by Julie Maxton & Andrew Ellis						
09:05	Andrew Lord The impact of capacity growth on national telecommunications networks	13:30	Dan Kilper Energy challenges in access and aggregation networks	09:00	René Essiambre Physical limitations to network capacity	13:30	Dimitra Simeonidou Enabling deep programmability in optical networks
09:30	Chih-Lin I Emerging applications and challenges	14:00	Leandros Tassiulas Cooperation and information replication in wireless networks	09:30	Polina Bayvel FREng Maximising the optical network capacity	14:00	John Dunne Integrated switching and transport
10:00	Discussion	14:30	Discussion	10:00	Discussion	14:30	Discussion
10:30	Coffee	15:00	Tea	10:30	Coffee	15:00	Tea
11:00	Chris Chambers Future traffic demand and characteristics from a media perspective	15:30	Scott Kirkpatrick Obstacles to achieving high utilisation	11:00	David Richardson FREng New optical fibres for high-capacity communications	15:30	Jon Crowcroft FREng FRS Cross layer decentralisation
11:30	Robin Mansell The social value of high-bandwidth networks: the case of creative performance	16:00	Erik Agrell Implications of information theory in optical fibre communications	11:30	Gee Kung Chang The benefits of convergence	16:15	Panel discussion/overview Future directions
12:00	Discussion	16:30	Discussion	12:00	Discussion		
12:30	LUNCH	17:00	CLOSE	12:30	LUNCH	17:00	CLOSE

Draft programme – correct as of 5/5/2015 – subject to change