



Technical Committee on Transmission, Access, and Optical Systems (TAOS)

Authors: Athanassios Manikas, Fabrizio Granelli and Steve Hranilovic

Date/Time: May 23, 2017, 7:00-9:00am.

Meeting Location: Room Gunston (East and West), Hyatt Regency Paris Etoile, Paris, France

Officers: Athanassios Manikas, Chair, a.manikas@imperial.ac.uk
Fabrizio Granelli, Vice-Chair, fabrizio.granelli@unit.it
Steve Hranilovic, Secretary, hranilovic@mcmaster.ca

Meeting was called to order at 7:00 am

1. Participants (24)

- Hossam Afifi, Mines Telecom, France
- Mauro Biagi, Univ. Roma, Italy
- Cicek Cavdar, KTH Royal Institute of Technology, Sweden
- Walter Cerroni, Univ. Bologna, Italy
- Tarek El-Bawab, Jackson State University, USA
- Jaafar Elmirghani, University of Leeds, UK
- Zexi Fang, Imperial College London, UK
- Thibaud Gabillard, Imperial College London, UK
- Fabrizio Granelli, University of Trento, Italy (*)
- Mamoun Guenach, Alcatel-Lucent Bell Labs, Belgium
- Kairi Hamdi, Manchester University, UK
- Ahmed Kamal, Iowa State University, USA
- Athanassios Manikas, Imperial College London, UK
- George Rouskas,
- Daniel So, Univeristy of Manchester, UK
- Vidhya Sridhar, Imperial College London, UK

- Luca Valcarengi, Scuola Superiore Sant'Anna, Italy
- Christos Verikoukis, CTTC, Spain (*)
- Tao Li,
- Majid Safari, Univ. Edinburgh, UK
- Federicdo Tonini,
- Jeremy Van den Eynde,
- Yong Liang Guan,
- Jeroen Verdyck

(*) TAEC participation on behalf of TAOS

2. Introduction

The Chair, Athanassios Manikas, welcomed all participants and outlined the agenda. First, the attendees were self-introduced. Then, the attached slides were presented by the Chair and discussed item-by-item.

3. Approval of IEEE Globecom 2016 Minutes

A motion was made by Jaafar Elmirghani to approve the minutes, the draft of which is posted on TAOS website (www.comsoc.org/~taos). The motion was seconded by Tarek El-Bawab and the minutes were approved without further remarks.

4. Highlights and Trends

Athanassios informed the attendees about a number of developments and in particular:

- Seventh issue of TAOS' Newsletter released May 2017 (and can be found on the TAOS website).
 - The editor of the issue was Jochen Maes from Nokia
- TAOS continues to sponsor the GC/ICC SAC Track:
 - Access Networks and Systems (ANS) SAC Track
- TAOS continues to sponsor two symposia in GC/ICC:
 - Optical Networks and Systems Symposium (ONS)
 - Green Communication Systems and Networks (GCSN) Symposium

5. Conference updates

Main GC/ICC submission trends have not significantly changed. For ICC Paris 2017, the number of submissions was larger than typical (over 3000 submissions), however, ONS continues to be at the lower end of symposia submissions (100 submissions). The more recent SAC Track on Green Communication Systems and Networks attracted a similar number of submission (115).

- IEEE ICC 2017:

- Meroune Debbah and David Gesbert served as TPC Chairs
- Received about 3080 submissions. This is significantly larger than typical number (around 2500)
- SAC Symposium: ANS Track, chaired by Steve Hranilovic: Received 33 submissions and accepted 13 papers (~39%). This is a typical level for this SAC track and similar to statistics for Globecom 2016.
- Optical Networks and Systems Symposium: co-chaired by Grzegorz Danilewicz and George Rouskas:
 - Received 100 papers: 46 papers on systems and 54 papers on networks. This is similar to previous ONS Symposia in terms of breakdown of areas. Also, this is a larger number than usual submissions and much larger than Globecom 2016 (only 67 submissions)
 - Accepted 39 papers (39%) which is slightly more selective than earlier years.
 - 25 papers in 5 lecture style sessions, and 3 papers in interactive sessions
- Green Communications Systems and Networks Symposium: co-chaired by Cicek Cavdar and Michela Meo: (these statistics presented by Cicek Cavdar and supported with additional slide deck attached).
 - The TPC consisted of 127 people, with at least 3 reviews per paper.
 - Received 115 submissions: 46 papers (~40%) in systems, 69 papers (~60%) in networks. There is a small shift to more system papers this year over previous.
 - Accepted 44 papers which is 37.9% acceptance ratio (inline with conference guidelines)
 - 152 authors from 22 countries represented in the the final program (approx. 40% Asia/Pacific, 40% Europe/Middle East, 16% USA, 4% Canada)
 - Symposium organized into 6 sessions covering systems and networking concepts. Additionally, two interactive sessions were held on topics of “Wireless Energy Harvesting” and “Energy-Efficient Wireless Communications”
- Workshops and Tutorials at ICC 2017
 - There was a total of 484 submitted workshop papers with 229 accepted. This yielded an acceptance ratio to 47.3%
 - Workshop Chairs: Abbas Jamalipour and Constantinos Papadias
 - Tutorial Chair: Luc Vandendorpe
- ICC hosted 3rd Workshp on Visible Light Communications (slide 13 presented by Mauro Biagi)
 - Co-Chairs: Mauro Biagi (TAOS), Zabih Ghassemlooy, Anna Maria Vegni
 - 44 submissions, 21 accepted.
 - Also presented results of JSAC issue of Visible Light Communications and Localisation (Mauro Biagi (TAOS) is a Guest Editor on this issue)
 - 107 papers submitted, acceptance ratio <20%

Upcoming conferences:

- GC 2017 (Singapore), TAOS nominated (and TPC Chairs approved)
 - Mamoun Guenach as chair for SAC ANS
 - Jaafar Elmirghani as co-chair for GCSN
 - Paolo Monti as co-chair for ONS
- ICC 2018 (Kansas City), TAOS nominated (and TPC Chairs approved)

- Khairi Hamdi as chair for SAC ANS
- Fabrizio Granelli as co-chair for GCSN
- Tarek El-Bawab as co-chair for ONS
- GC 2018 (Abu Dhabi), TAOS nominated
 - Mauro Biagi as chair for SAC ANS (approved)
 - Christos Verikoukis as co-chair for GCSN (pending approval)
 - Hakki Cankaya as co-chair for ONS (approved)
- ICC 2019 (Shanghai) – deadline for nominations is June 4, 2017
- GC 2019 (Hawaii)

Moreover, TAOS endorsed the following events: SPECTS 2017, HONET-ICT 2017, IINTEC 2017

- A discussion ensued about proposing TAOS member representation on conference TPC in order for TAOS endorsement.

6. Other Activities/Updates

- Request to send editorships to TAOS Secretary for our documentation
- Distinguished Lecturers
 - Anura Jayasumana (2nd term)
 - Tarek El-Bawab (2016-2017) (provided a brief report on activities)
 - Abdallah Shami (2016-2017)
 - Athanassios Manikas (2016-2017) (provided a brief report on activities)
- TAOS Recertification
 - Recertification was successful in 2017 and feedback to be presented at next meeting at Globecom 2017

7 Awards

- The TAOS Best Paper Awards in the ICC 2017 for ANS Track
 - "A delay-based cross-layer scheduler for adaptive DSL" by Jeremy Van den Eynde, Jeroen Verdyck, Marc Moonen, and Chris Blondia,
- TAOS Best Paper Award in the ICC 2017 ONS Symposium
 - "Physical Layer Security for Optical Attocell Networks" by Zhe Chen and Harald Haas
- TAOS Best Paper Award in the ICC 2017 GCSN Symposium
 - "Energy-aware Coflow and Antenna Scheduling for Hybrid Server-Centric Data Center Networks" by Tao Li, and Silvia Santini

8 Other Business Arising

- Jaafar Elmirghani raised two issues at the meeting
 - the issue of publications
 - Globecom 2017
- Discussion on the naming of TAOS – Transmission, Access and Optical Systems
 - "Transmission" is on decline. Perhaps rename "T" to "Telecommunications". No agreement was reached.

The meeting was adjourned at 8:45 am.

Attachments: 1. Meeting Slides (including slides from report of GCSN Symposium slides)

IEEE Communications Society (ComSoc)
Transmission, Access and Optical Systems (TAOS)
Technical Committee

ICC 2017 TC Meeting

Athanasios Manikas

Chair, TAOS

May 23, 2017

TAOS Agenda

- 1 Introductions
- 2 Approval of the Globecom 2016 TAOS Meeting Minutes (Washington)
- 3 Highlights and Trends
- 4 Conferences: Statistics and Other Information
- 5 Other Activities/Updates
- 6 TAOS Best Paper Awards
- 7 Any Other Business

1. Introductions

- Welcome
- Introductions

2. Approval of the Globecom2016 meeting minutes (Washington)

- The Globecom 2016 minutes have been provided in advanced of this meeting and can be found in the following web link:

http:

[//taos.committees.comsoc.org/files/2015/08/minutes_of_meetingGC16slides.pdf](http://taos.committees.comsoc.org/files/2015/08/minutes_of_meetingGC16slides.pdf)

status: pending approval

- Actions: to approve the Globecom 2016 minutes
 - ▶ any corrections in the minutes?
 - ▶ motion that we approve the minutes?
 - ▶ seconder?
 - ▶ Vote:
 - ▶ Decision

3. Highlights and Trends

- **Newsletter** : The 7th Issue of TAOS newsletter has been published this month

<http://taos.committees.comsoc.org/newsletter/>

Editor: Jochen Maes (Nokia)

- **Sponsorships Globecom and ICC**

- ▶ Access Networks and Systems (**ANS**) track in SAC
- ▶ Optical Networks and Systems Symposium (**ONS**)
- ▶ Green Communication Systems and Networks (**GCSN**)

4. Conferences: Statistics and Other Information

4.1 ICC 17 (Paris): Comparison with Previous Conferences

City	Conference	Sub	Acc	Acc%
Singapore	Globecom 2017	2626	-	-
Paris	ICC 2017	3080	1178	38.2
Washington	Globecom 2016	2479	910	36.7
Kuala Lumpur	ICC 2016	2469	960	38.8
San Diego	Globecom 2015	2614	915	35.0
London	ICC 2015	3337	1285	38.5
Austin Texas	Globecom 2014	2174	861	39.6
Sydney	ICC 2014	2691	978	37.8
Atlanta	Globecom 2013	2251	834	37.0
Budapest	ICC 2013	2418	938	38.8

- TPC Chairs:

- ▶ Méroune Debbah (Huawei, France) and
- ▶ David Gesbert (EURECOM, France)

4.2. ICC 2017 (Paris) - Statistics

Tracks	Sub	Acc	Acc%
SAC-1 ASN	33	13	39.4
SAC-2 BDN	93	37	39.8
SAC-3 CCN	90	32	35.6
SAC-4 CSG	45	17	37.8
SAC-5 DS	18	7	38.9
SAC-6 EH	53	21	39.6
SAC-7 IoT	115	46	40.0
SAC-8 MBMC	21	10	47.6
SAC-9 SSC	57	23	40.4
SAC-10 SN	53	20	37.7
SAC-11 SDN&NFV	107	37	34.6

Symposia	Sub	Acc	Acc%
SAC	685	263	38.4
AHSN	282	119	42.2
CRN	91	33	36.3
CISS	220	84	38.2
CSSMA	68	26	38.2
CT	164	64	39
GCSN	115	44	38.3
CQRM	124	48	38.7
NGNI	179	74	41.3
SPC	185	65	35.1
ONS	100	39	39.0
WCN	546	209	38.3
MWN	321	110	34.3

4.3. Statistics - Track: SAC-1 ANS

ICC17	SAC-1 ANS	Subm	Acc	%
		33	13	39.4
	optical	1	0	
	Free-space optics/optical wireless	5	1	
	wireless	9	5	
	optical/wireless integration	5	1	
	xDSL	5	4	
	Cable (HFC & IPTV)	0	0	
	PLC	4	1	
	others	4	1	

- SAC-1 ANS Track Chairs:

- ▶ **Steven Hranilovic** (McMaster University, Canada) - **TAOS**

4.4. SAC-1 ANS: Comparison with Previous Symposia

		Subm	Acc	%
GC 17	SAC-1 ANS	27	-	-
ICC 17	SAC-1 ANS	33	13	39.4
GC 16	SAC-1 ANS	36	14	38.9
ICC 16	SAC-1 ANS	22	9	40.9
GC 15	SAC-1 ANS	32	11	34.4
ICC 15	SAC-1 ANS	36	17	47.2
GC 14	SAC-1 ANS	13	6	46.2
ICC 14	SAC-1 ANS	18	8	44.4
GC 13	SAC-1 ANS	30	11	36.7
		(27,8)		

4.5. ONS: Comparison with Previous Symposia

		Submitted			Accepted			Acc Rate %
		Syst	Net	Total	Syst	Net	Total	
GC17	ONS	45	39	84	-	-	-	-
ICC 17	ONS	46	54	100			39	39.0
GC 16	ONS	32	35	67	17	11	28	41.8
ICC 16	ONS	59	49	108	18	25	43	39.8
GC 15	ONS			85			33	38.8
ICC 15	ONS	47	47	94			40	42
GC 14	ONS	35	40	75			30	40.0
ICC 14	ONS			75			30	40.0
GC 13	ONS	32	31	63	12	12	24	
				(83,15)				

- ONS Symposium Chairs:

- ▶ Grzegorz Danilewicz (Poznan University of Technology, Poland)
- ▶ **George Rouskas** (North Carolina State University, USA) - **TAOS**

4.6 GCSN: Comparison with Previous Symposia

		Submitted			Accepted			Acc Rate %
		CS	Net	Total	CS	Net	Total	
GC 17	GCSN			114				
ICC 17	GCSN	46	69	115			44	38.3
GC 16	GCSN	33	65	98	12	26	38	38.7
ICC 16	GCSN			109			42	38.5
GC 15	GCSN			107			39	36.5
ICC 15	GCSN			119			43	36.1
GC 14	GCSN			108			42	38.8
ICC 14	GCSN			105			41	39
GC 13	GCSN			92			36	39
				(107,8)				

- GCSN Symposium Chair

- ▶ **Cicek Cavdar** (Royal Inst. of Tech. Stockholm, Sweden) - **TAOS**
- ▶ Michela Meo (Politecnico di Torino, Italy)

4.7. Statistics - Workshops and Tutorials

		Subm	Acc	%
ICC 17 Workshops	Number of Workshops	36	18	50.0
	Total Workshop papers	484	229	47.3
ICC 17 Tutorials	Number of Tutorials			
	Total Tutorial papers			

- Workshop Chairs:
 - ▶ Abbas Jamalipour (University of Sydney)
 - ▶ Constantinos Papadias (AIT, GR)
- Tutorial Chair
 - ▶ Luc Vandendorpe (Catholic University of Louvain)

5. Other Activities/Updates

- ICC 2017 hosted the 3rd workshop on **Optical Wireless Comms.**
 - ▶ Co-Chairs :
 - ★ **Mauro Biagi** , Sapienza Univ. of Rome, Italy (**TAOS**)
 - ★ Zabih Ghassemlooy, Northumbria Univ., Newcastle, UK
 - ★ Anna Maria Vegni, Univ. of RomaTre, Italy
 - ▶ Submissions were 44 accepted papers 21 (acc. Rate a bit less 50%)
- IEEE Journal of Selected Areas in Communications: Special issue (ongoing) on **Visible Light Localization Communication and Networking.**
 - ▶ Guest Editors:
 - ★ **Mauro Biagi** , Sapienza Univ. of Rome, Italy (**TAOS**)
 - ★ Lutz Lampe, Univ. of British Columbia, Vancouver, Canada
 - ★ Tom Little, Boston University, USA
 - ★ Stefan Mangold, Lovefield, Switzerland
 - ★ Zhenguyan Xu, Univ. of Science and Technology of China, China.
 - ★ Rong Zhang, Univ. of Southampton, UK
 - ▶ **107 paper received.** Expected acceptance ratio < 20%.
 - ▶ Publication scheduled for 3rd quarter 2017.

5. Other Activities/Updates (cont.)

● Editorships

- ▶ Could you please send to Steve (TAOS Secretary) an email with your editorial activities?

● Distinguished Lecturers

- ▶ Anura Jayasumana (2nd term)
- ▶ Tarek El-Bawab (2016-2017)
- ▶ Abdallah Shami (2016-2017)
- ▶ Athanassios Manikas (2016-2017)

● TAOS Recertification

- ▶ the TC's Recertification Standing Committee selected TAOS as one of the 8 TCs to be recertificated in year 2017.
- ▶ Report has been submitted early this months (May 2017)
- ▶ Any Feedback received from the Resertification Committee will be discussed in the next TAOS meeting

5. Other Activities/Updates (cont.)

5.1. Conferences: TAOS Nominations - Future ICC and GlobeCom

● **GlobeCom 2017 (Singapore)**

- ▶ Mamoun Guenach as Chair for **SAC-ANS**: **approved**
- ▶ Jaafar Elmirghani as co-Chair for **GCSN**: **approved**
- ▶ Paolo Monti as co-Chair for **ONS**: **approved**

● **ICC 2018 (Kansas City)**

- ▶ Khairi Hamdi as Chair for **SAC-ANS**: **approved**
- ▶ Fabrizio Granelli as co-Chair for **GCSN**: **approved**
- ▶ Tarek El-Bawab as co-Chair for **ONS**: **approved**

● **GlobeCom 2018 (Abu Dhabi)**

- ▶ Mauro Biagi as Chair for **SAC-ANS**: **approved**
- ▶ Taisir El-Gorashi as Co-Chair for **GCSN**: **pending approval**
- ▶ Hakki Cankaya as Co-Chair for **ONS**: **approved**

● **ICC 2019 (Shanghai)**

- ▶ The deadline for the nominations is June 4, 2017.

● **Globecom 2019 (Hawaii)**

5. Other Activities/Updates (cont.)

5.2. Other TAOS Sponsored Conferences

- **SPECTS 2017**: <http://atc.udg.edu/SPECTS2017/>
 - ▶ TAOS Reps: Fabrizio Granelli, Khairi Hamid and Evan Venieris
- **HONET-ICT 2017**: <http://honet-ict.org/>
 - ▶ TAOS reps: Ahmed E. Kamal, Athanassios Manikas, Jaafar Elmirghani
- **IINTEC 2017**: <http://www.iintec.org>
 - ▶ recent

6. TAOS Best Paper Awards

6.1. ANS Best Paper

- The TAOS Best Paper Awards in the ICC 2017's **" Access Networks and Systems" (ANS)** Track of the Selected Areas in Communications (SAC) Symposium, is presented to the paper:

"A delay-based cross-layer scheduler for adaptive DSL"

by

Jeremy Van den Eynde, Jeroen Verdyck, Marc Moonen, and Chris Blondia,

6.2 ONS Best paper

- The TAOS Best Paper Awards in the ICC 2017's Symposium on **"Optical Networks and Systems" (ONS)** , is presented to the paper:

"Physical Layer Security for Optical Attocell Networks"

by

Zhe Chen and Harald Haas

6.3. GCSN Best Paper

- The TAOS Best Paper Awards in the ICC 2017's Symposium on **"Green Communications Systems and Networks" (GCSN)** , is presented to the paper:

"Energy-aware Coflow and Antenna Scheduling for Hybrid Server-Centric Data Center Networks"

by

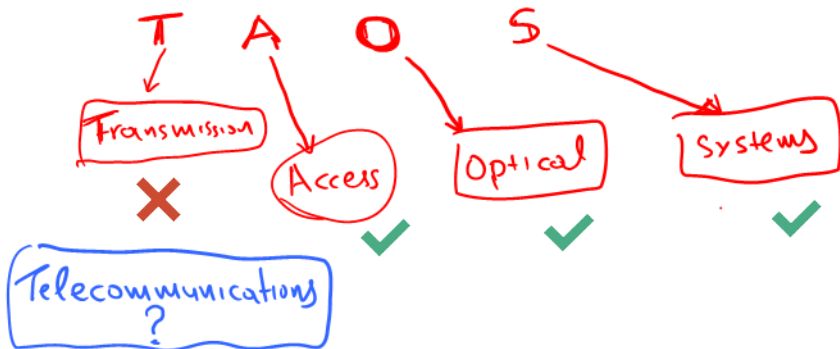
Tao Li, and Silvia Santini

7. Any Other Business

* Jaafar: various points about "Publications"

* Jaafar: various points about "Globecom2017"

* Chair: discussion about TAOS name



Thank You!

The background features abstract, overlapping green geometric shapes in various shades, including light lime green, medium green, and dark forest green. The shapes are primarily triangles and polygons, creating a dynamic, layered effect. The text is centered in a clean, sans-serif font.

IEEE ICC 2017 Green Communications Systems and Networks Symposium

IEEE ICC 2017 GCSN symposium

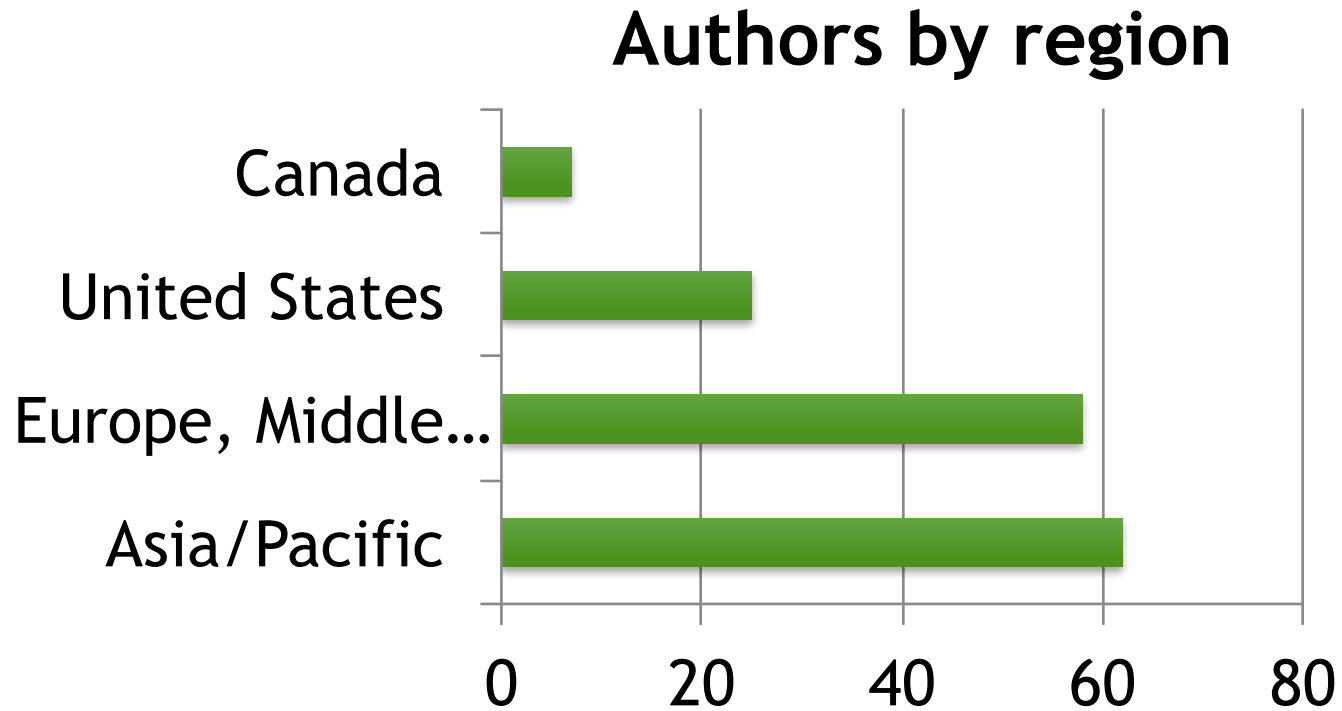
- The ICC 2017 Green Communications Systems and Networks (GCSN) is focused on
 - energy-efficient and sustainable communications
 - reducing carbon emissions and operational costs in communication
 - using communication and computing technologies to enable solutions such as smart grids and green buildings
 - green cloud computing and data centers

GCSN people and papers

- Chair persons
 - Cicek Cavdar, Royal Institute of Technology Stockholm, Sweden
 - Michela Meo, Politecnico di Torino, Italy
- TPC lists 127 people
- Papers:
 - 116 submissions
 - 44 accepted
 - 37.9% acceptance ratio
 - At least 3 reviews per paper
 - Average no. of reviews per paper: 3.6

GCSN people and papers

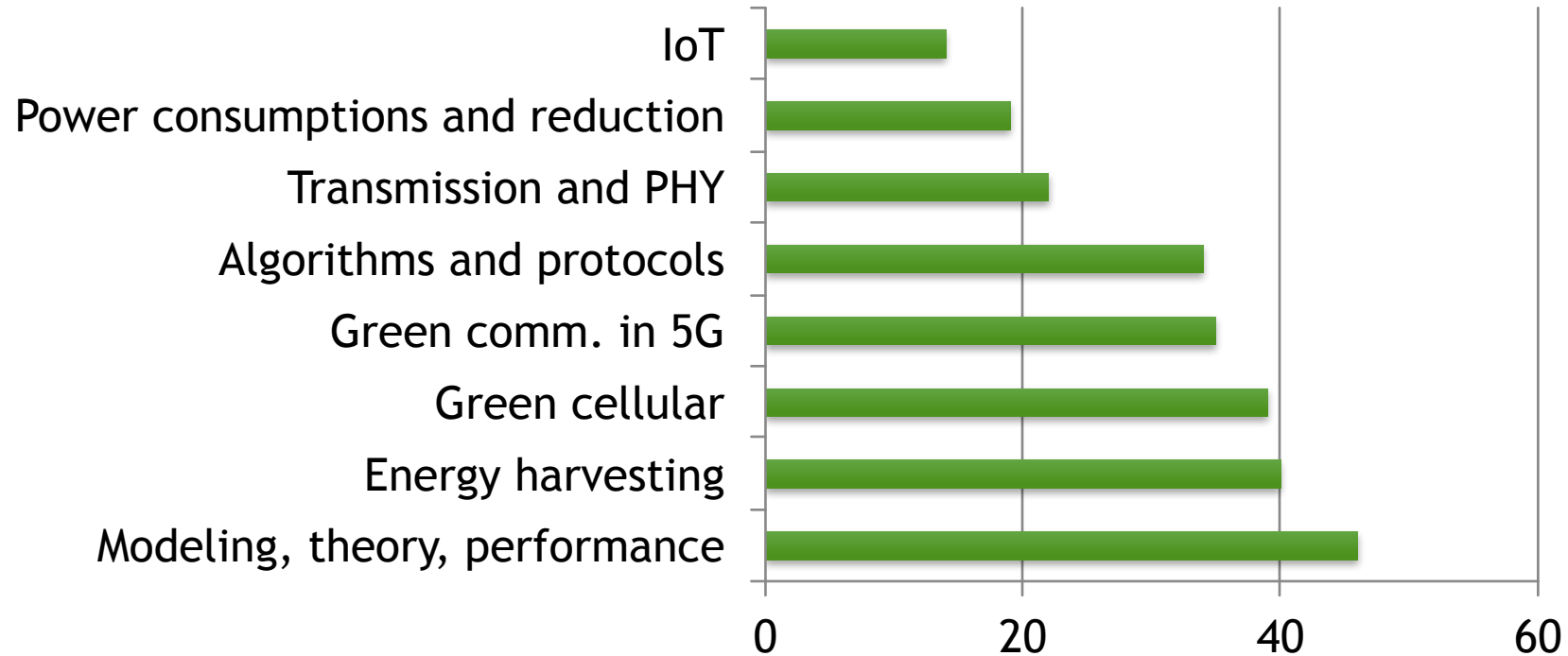
- 387 authors from 33 countries of *submitted* papers
- 152 authors from 22 countries of *accepted* papers



GCSN topics



Topics (>10)



GCSN program overview

- 6 sessions:
 - Wireless Energy Harvesting
 - Green Wireless Systems
 - Enabling Technologies for Green Internet of Things
 - Green Wireless Networks
 - Green Communications in 5G Systems
 - Energy Harvesting for Green Wireless Communications
- 2 interactive sessions:
 - Wireless Energy Harvesting
 - Energy-Efficient Wireless Communications

GCSN program overview

	Mon, May 22 nd		Tue, May 23 rd	Wed, May 24 th
9:00-10:30			Green Wireless Systems	Green Comm. in 5G Systems
11:00-11:45	Wireless Energy Harvesting	Energy efficient networks		
11:45-12:30				
14:00-15:30			Enabling Technologies for Green Internet of Things	Energy Harvesting for Green Wireless Communications
16:00-16:50			Green Wireless Networks	
16:50-17:30				Energy-Efficient Wireless Communications

Thanks to...

- ▶ ICC organizers
- ▶ Authors of the papers
- ▶ TPC members
- ▶ Reviewers
- ▶ Speakers
- ▶ Attendees
- ▶ Technical Committee on Green Communications and Computing