



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

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**Authors:** Athanassios Manikas, Fabrizio Granelli and Steve Hranilovic

**Date/Time:** December 6, 2017, 12:30-14:00.

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**Meeting Location:** Globecom 2018 - Marina Bay Sands, Rm. 4911, Singapore.

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

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Meeting was called to order at 12:30

### 1. Participants (16)

- Tarek El-Bawab, Jackson State University, USA
- Jaafar Elmirghani, University of Leeds, UK
- Nathan Gomes, U. Kent, UK
- Steve Gorshe
- Fabrizio Granelli, U. Trento, Italy
- Kairi Hamdi, Manchester U., UK
- Steve Hranilovic, McMaster U., Canada
- Maode Ma, NTU, Singapore
- Athanassios Manikas, Imperial College London, UK
- Paolo Monti, KTH, Sweden
- Michael Peeters
- Abdallah Shami, U. Western Ontario, Canada
- Daniel So, U. Manchester, UK
- Christos Verikoukis, CTTC, Spain
- Mohan Gurusamy, NUS, Singapore
- Wei Chen, Tsinghua University, China

## 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 ICC 2017 Minutes

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

## 4. Highlights and Trends

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

- Eighth issue of TAOS' Newsletter released Dec 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. Total number of submissions for ICC Kansas City 2018 are very comparable to Singapore Globecom 2017. For Globecom 2017, however, ANS SAC Track had a significant drop in submissions (27 for GC 2017 and down to 15 for ICC 2018). ONS continues to have lower submission numbers (84 for GC 2017 and 71 for ICC 2018). The number of papers to GCSN is relatively stable (114 for GC 2017 and 108 for ICC 2018).

- IEEE Globecom 2017 :
  - Ying-Chang Liang, Teng Joon Lim and Chengshan Xiao served as TPC Chairs
  - Received about 2630 submissions. This is a typical value down slightly over ICC Paris 2017 (around 3080)
  - SAC Symposium: ANS Track, chaired by Mamoun Guenach (TAOS): Received 27 submissions and accepted 11 papers (~41%). This is a typical level for this SAC track and similar to statistics for ICC 2017.
  - Optical Networks and Systems Symposium: co-chaired by Gangxiang Shen and Paolo Monti (TAOS):
    - Received 84 papers: 45 papers on systems and 39 papers on networks. The number of submissions is down over ONS ICC 2017 (which had 100 submissions). Also breakdown is atypical with more systems rather than

networking papers. All worrisome is that submissions to the SAC Track for ICC Kansas City 2018 are lower (71 submissions)

- Accepted 33 papers (39%) which is comparable to earlier years.
- Green Communications Systems and Networks Symposium: co-chaired by Yan Zhang and Jaafar Elmirghani (TAOS):
  - Received 114 submissions: 49 papers (~43%) in systems, 66 papers (~57%) in networks. There is essentially the same as previous years.
  - Acceptance rate is 38.6% which is in line with conference guidelines
  - Some concern that some papers submitted were not totally on “green” topic. However, were considered since they were related to the central theme of the symposium.
- Workshops and Tutorials at GC 2017
  - There was a total of 439 submitted workshop papers with 119 accepted. This yielded an acceptance ratio to 27.1%
  - Workshop Chairs: Tony Quek, Wei Zhang, Gang Wu
  - Concern raised that these workshops are taking papers from traditional symposia. Needs thought on how to establish process to have successful workshops appear in larger symposia (e.g., ONS and SAC Track on ANS)
  - Tutorial Chairs: Rui Zhang, Lingyang Song, Stefano Bregni (TAOS)
  - Globecom 2017 hosted 7<sup>th</sup> Workshop on Optical Wireless Communications
    - Co-Chairs: Jean Armstrong (TAOS), Steve Hranilovic (TAOS), Takaya Yamazato
    - 31 submissions, 15 accepted.
    - Two keynotes and panel session involving industrial speakers.
  - Globecom 2017 hosted Greening Cloud and Virtualised Communication Networks
    - Dec. 8<sup>th</sup> (half day)
    - Presenter: Jaafar Elmirghani (TAOS)

#### Editorships of TAOS Members

- Action item to all members to email secretary (Steve Hranilovic) all editorial activities for the last year.

#### Distinguished Lecturers

- Anura Jayasumana (2014-5 & 2016-7)
- Tarek El-Bawab (2016-7 & 2018-9)
- Abdallah Shami (2016-7)
- Athanassios Manikas (2016-7)

#### TAOS Recertification

- TAOS submitted reports for May 2017 recertification.
- At TEAC – TAOS was listed as one TC that was recertified.

#### Upcoming conferences:

- ICC 2018 (Kansas City), TAOS nominated (and TPC Chairs approved)
  - 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
- GC 2018 (Abu Dhabi), TAOS nominated
  - Mauro Biagi as chair for SAC ANS - approved
  - Taisir El-Gorashi as co-chair for GCSN - approved
  - Hakki Cankaya as co-chair for ONS - approved
- ICC 2019 (Shanghai)
  - Vidhya Sridhar chair for SAC ANS - approved
  - Daniel So as co-chair for GCSN - approved
  - No TAOS representative - Rule in GITC - each TC can support 2 chairs and must order their preference.
- GC 2019 (Hawaii)
  - Maode Ma chair for SAC ANS – pending approval
  - Kyng Sup Kwak as co-chair for GCSN – pending approval
  - Mohan Gurusamy as co-chair for ONS – pending approval

## 6. Other Activities/Updates

- Request to send editorships to TAOS Secretary for our documentation
- TAOS endorsed the following events: SPECTS 2017, HONET-ICT 2017, NETWORKS 2018
- A discussion ensued about using such endorsed conferences to attract more members to TAOS.
- Distinguished Lecturers
  - Tarek El-Bawab (2016-2017) : provided a brief report on activities
  - Athanassios Manikas (2016-2017) : provided a brief report on activities
- Need representative for ComSoc Student Competitions - Walter Cerroni retired from this position since serving from 2014.
  - Maode Ma, NTU suggested for 2017-19

## 7 Awards

- The TAOS Best Paper Awards in the GC 2017 for ANS Track
  - "Exploring Field Noise on G.fast Frequencies" by B. Drooghaag, J. Maes, M. El Fani, V. Moeyaert,
- TAOS Best Paper Award in the GC 2017 ONS Symposium
  - "TDM EPON Fronthaul Upstream Capacity Improvement Via Traffic Classification and Sifting" by Y. Wu, M. Tornatore, Y. Zhao, B. Mukherjee.
- TAOS Best Paper Award in the GC 2017 GCSN Symposium
  - "Energy Cooperation for Sustainable Base Station Deployments: Principles and Algorithms" by A. Fernandez Gambin and M. Rossi.
- Plaques for all above authors will be provided at the meeting in ICC 2018 in Kansas City.

## 8 Other Business Arising

- Jaafar Elmirghani raised the following issues at the meeting
  - New IEEE standards for Green Communications - 9 approved - green coms IEEE 1922.1, 1923.1 to 1929.1
  - 2 working groups meeting to discuss proposals.
  - Final sponsor ballot on Sept. 2018 and invited others to come and participate

The meeting was adjourned at around 2pm.

Attachments: 1. Meeting Slides

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

GC 2017 TC Meeting, 12:30-14:00, Room 4911,  
Marina Bay Sands, Singapore.

Athanasios Manikas

Chair, TAOS

December 6, 2017

# TAOS Agenda

- 1 Introductions
- 2 Approval of the ICC 2017 TAOS Meeting Minutes (Paris)
- 3 Highlights and Trends
- 4 Conferences: Statistics and Other Information
- 5 Other Activities/Updates
- 6 TAOS Best Paper Awards
- 7 Any Other Business

# 1. Introduction

- Welcome
- Introductions



## 2. Approval of the ICC 2017 meeting minutes (Paris)

- The ICC 2017 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\\_meetingICC17slides.pdf](http://taos.committees.comsoc.org/files/2015/08/minutes_of_meetingICC17slides.pdf)

status: pending approval

- Actions: to approve the ICC 2017 minutes
  - ▶ any corrections in the minutes?
  - ▶ motion that we approve the minutes?
  - ▶ seconder?
  - ▶ Vote:
  - ▶ Decision

### 3. Highlights and Trends

- **Newsletter :**

- ▶ The 8th 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 (**ONS**) Symposium
- ▶ Green Communication Systems and Networks (**GCSN**) Symposium

## 4. Conferences: Statistics and Other Information

### 4.1 GC-17 (Singapore): Comparison with Previous Conferences

City	Conference	Sub	Acc	Acc%
Kansas City	ICC 2018	2427	-	-
Singapore	Globecom 2017	2630	1026	39.0
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 (GL 2017):

- ▶ Ying-Chang Liang (Univ. of Elec. Sc. and Tech. of China & Univ. of Sydney)
- ▶ Teng Joon Lim (National University of Singapore) and
- ▶ Chengshan Xiao (Lehigh University)

## 4.4. SAC-1 ANS: Comparison with Previous Tracks

		Subm	Acc	%
ICC 18	SAC-1 ANS	15	-	-
GL 17	SAC-1 ANS	27	11	40.7
ICC 17	SAC-1 ANS	33	13	39.4
GL 16	SAC-1 ANS	36	14	38.9
ICC 16	SAC-1 ANS	22	9	40.9
GL 15	SAC-1 ANS	32	11	34.4
ICC 15	SAC-1 ANS	36	17	47.2
GL 14	SAC-1 ANS	13	6	46.2
ICC 14	SAC-1 ANS	18	8	44.4
GL 13	SAC-1 ANS	30	11	36.7
		(26,9)		

- SAC-1 ANS Track Chair (GL 2017):

- ▶ Mamoun Guenach (Alcatel-Lucent Bell Labs, Belgium) - **TAOS** ✓

## 4.5. ONS: Comparison with Previous Symposia

		Submitted			Accepted			Acc Rate %
		Syst	Net	Total	Syst	Net	Total	
ICC 18	ONS	41%	59%	71				
GL 17	ONS	54%	46%	84	55%	45%	33	39.3
ICC 17	ONS	46%	54%	100			39	39.0
GL 16	ONS	48%	52%	67	61%	39%	28	41.8
ICC 16	ONS	55%	45%	108	42%	58%	43	39.8
GL 15	ONS			85			33	38.8
ICC 15	ONS	50%	50%	94			40	42.0
GL 14	ONS	47%	53%	75			30	40.0
ICC 14	ONS			75			30	40.0
GL 13	ONS	51%	49%	63	50%	50%	24	
				(82,15)				

- ONS Symposium Chairs (GL 17)

- ▶ Gangxiang (Steven) Shen (Soochow University)
- ▶ Paolo Monti (KTH Royal Institute of Technology) - **TAOS**

## 4.6 GCSN: Comparison with Previous Symposia

		Submitted			Accepted			Acc Rate
		CS	Net	Total	CS	Net	Total	%
ICC 18	GCSN			108				
GC 17	GCSN	43%	57%	114	43%	57%	44	38.6
ICC 17	GCSN	40%	60%	115			44	38.3
GC 16	GCSN	34%	66%	98	32%	68%	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	39.0
GC 13	GCSN			92			36	39.0
				(107,8)				

- GCSN Symposium Chair (GL 17)

- ▶ Yan Zhang (University of Oslo, Norway)
- ▶ Jaafar Elmighani (University of Leeds, UK) - **TAOS**

## 4.7. Statistics - Workshops and Tutorials

		Subm	Acc	%
GC 17 Workshops	Number of Workshops	31	17	54.8
	Total Workshop papers	439	119	27.1
GC 17 Tutorials	Number of Tutorials	53	24	45.2

- Workshop Chairs:

- ▶ Tony Quek (Singapore University of Technology and Design)
- ▶ Wei Zhang (University of New South Wales)
- ▶ Gang Wu (University of Electronic Science and Technology of China)

- Tutorial Chair

- ▶ Rui Zhang (National University of Singapore)
- ▶ Lingyang Song (Peking University)
- ▶ Stefano Bregni (Politecnico di Milano) - **TAOS**

## 5. Other Activities/Updates

- Globecom 2017 hosted 7th Workshop on Optical Wireless communications.
  - ▶ Co-Chairs:
    - ★ Jean Armstrong, Monash University Australia - **TAOS**
    - ★ Steve Hranilovic, McMaster University, Canada - **TAOS**
    - ★ Takaya Yamazato, Nagoya University, Japan
  - ▶ 31 submitted papers, 15 accepted.
  - ▶ Also have two keynote talks and panel discussion session which includes industrial participation.
- Globecom 2017: Tutorial 16 - Greening Cloud and Virtualised Communication Networks
  - ▶ Dec 8th at 9:00 AM until 12:30 PM
  - ▶ Peony Main Ballroom 4502 - Level 4 - Marina Bay Sands
  - ▶ Presenters: Jaafar Elmighani, University of Leeds, UK - **TAOS**



## 5. Other Activities/Updates (cont.)

### ● Editorships

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

### ● Distinguished Lecturers

- ▶ Anura Jayasumana (2014-2015, 2nd term: 2016-2017)
- ▶ Tarek El-Bawab (2016-2017, 2nd term: 2018-2019)
- ▶ Abdallah Shami (2016-2017)
- ▶ Athanassios Manikas (2016-2017)

### ● TAOS Recertification

- ▶ TAOS has submitted a report in May 2017 for "recertification"
- ▶ No Feedback has been received from the TC's Recertification Committee.

## 5. Other Activities/Updates (cont.)

### 5.1. Conferences: TAOS Nominations - Future ICC and GlobeCom

#### ● **ICC 2018 (Kansas City)**

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

#### ● **GlobeCom 2018 (Abu Dhabi)**

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

#### ● **ICC 2019 (Shanghai)**

- ▶ Chair for **SAC-ANS**: Vidhya Sridhar - **approved**
- ▶ co-Chair for **GCSN**: Daniel So - **approved**
- ▶ co-Chair for **ONS**: ←

#### ● **Globecom 2019 (Hawaii)**

- ▶ Chair for **SAC-ANS**: Maode Ma - **pending approval**
- ▶ co-Chair for **GCSN**: Kyng Sup Kwak - **pending approval**
- ▶ co-Chair for **ONS**: Mohan Gurusamy - **pending approval**

## 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, Athanasios Manikas, Jaafar Elmirghani
- **NETWORKS 2018**: <https://networks2018.upct.es/>
  - ▶ TAOS reps: Fabrizio Granelli , Walter Cerroni, George Rouskas

## 5. Other Activities/Updates (cont.)

### 5.3. ComSoc Students Competition - TAOS representatives

- Walter Cerroni: 2014- Jun 2017

- ?????????????? 2017-2019

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## 6. TAOS Best Paper Awards

### 6.1. ANS Best Paper

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

**Exploring Field Noise on G.fast Frequencies** ✓

Authors:

Benoît Drooghaag, Nokia Belgium

Jochen Maes, Nokia Bell Labs, Belgium

Mehdi El Fani, Université de Mons (UMONS) & Faculté Polytechnique, Belgium

Véronique Moeyaert, Université de Mons (UMONS) & Faculté Polytechnique, Belgium

## 6.2 ONS Best paper

CC 2017

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

### **TDM EPON Fronthaul Upstream Capacity Improvement Via Traffic Classification and Sifting**

#### Authors:

Yu Wu, University of California, Davis, USA;

Massimo Tornatore, Politecnico di Milano Italy, University of California, Davis, USA;

Yongli Zhao, Beijing University of Posts and Telecommunications, P.R. China;

Biswanath Mukherjee, University of California, Davis, USA

## 6.3. GCSN Best Paper

GL2017

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

### Energy Cooperation for Sustainable Base Station Deployments: Principles and Algorithms

#### Authors

Angel Fernandez Gambin, University of Padova, Italy,

Michele Rossi, University of Padova, Italy.

## 7. Any Other Business

\* Jaafar: IEEE standards call for participation (Green Comms)

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**Thank You!**