



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

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

**Date/Time:** May 21, 2018, 18:30-19:30.

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**Meeting Location:** ICC 2018 – Liberty Ballroom, Kansas City, USA.

**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 18:30

### Participants (18)

- Mauro Biagi, U. Roma
- Walter Ceroni, U. Bologna
- Tarek El-Bawab, Jackson State University, USA
- Jaafar Elmirghani, University of Leeds, UK
- Harald Haas, U. Edinburgh
- Steve Hranilovic, McMaster U.
- Ahmed Kamal, Iowa State U.
- Athanassios Manikas, Imperial College London, UK
- Rubayet Shafin, Virginia Tech.
- Jonathan Ashdown, AFRL
- John Matyjas, AFRL
- Lingjia Liu, Virginia Tech.
- Abdelmoula Bekkali, KDDI
- Jianan Bai, Virginia Tech.
- Angel Fernandez-Gambin, U. Padova
- Sabidur Rahman, UC Davis

- Yu Wu, UC Davis
- Zhizhen Zhong, Tsinghua U.

## 1. 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.

## 2. Approval of IEEE Globecom 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 Elmighani and the minutes were approved unanimously without further remarks.

## 3. Newsletters and Sponsorships

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

- Ninth issue of TAOS' Newsletter released May 2018 (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

## 4. Conference updates

Main GC/ICC submission trends have not significantly changed. Total number of submissions for ICC Kansas City 2018 (2431) are slightly down as compared to Singapore Globecom 2017 (2630) and ICC 2017 Paris (3080). For ICC 2018, however, ANS SAC Track had a significant drop in submissions (27 for GC 2017 and down to 15 for ICC 2018). Discussion centered on concern for these low numbers for ICC 2018, but there was optimism that it seemed that a return to historic levels of submission for GC2018. There is also an overall concern regarding the steadily dropping ONS submission numbers 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, 108 for ICC 2018, 113 for GC18).

- IEEE ICC 2018:
  - Yi Qian (University of Nebraska-Lincoln, USA), Rose Qingyang Hu (Utah State University, USA) and Lisandro Z. Granville (Federal University of Rio Grande do Sul, Brazil) served as TPC Chairs
  - Received about 2431 submissions. This is down slightly over ICC Paris 2017 (around 3080) and Globecom Singapore 2017 (at 2630)

- SAC Symposium: ANS Track, chaired by Khairi A Hamdi (University of Manchester, UK) (TAOS): Received 15 submissions and accepted 5 papers (~33%). This is a significant reduction in the number of papers over previous offerings of this SAC track (27 in GC 2017 and 33 in ICC 2017). Tarek made comment of concern regarding low numbers for ICC 2018, but remarked on a return to historic levels of submission for GC2018
- Optical Networks and Systems Symposium: co-chaired by Tarek El-Bawab (Jackson State University, USA) (TAOS) and Nasir Ghani (University of South Florida, USA):
  - Received 71 papers: 29 papers on systems and 42 papers on networks.
  - This number of submissions represents a significant downturn over ONS GC 2017 (84 submissions) and ONS ICC 2017 (which had 100 submissions). Also breakdown returns to a traditional focus on more networking papers. A worrisome trend is that submissions to the ONS for GC Abu Dhabi 2018 continue to fall (68 submissions)
  - Accepted 30 papers (42%) which is higher as compared to earlier years.
  - Tarek presented a report where he mentioned the high quality of system papers which included a best paper award. However, he also voiced concern that the number of papers submitted continues to decline from symposium to symposium.
- Green Communications Systems and Networks Symposium: co-chaired by Jinsong Wu (Universidad de Chile, Chile) and Fabrizio Granelli (University of Trento, Italy) (TAOS):
  - Received 108 submissions: 36 papers (~33%) in systems, 72 papers (~67%) in networks. There is essentially the same as previous years.
  - Acceptance rate is 38.9% which is in line with conference guidelines
  - Discussion noted that the that number of papers to this symposium has plateaued over the last 5 or so offerings.
  - Suggesting action items was to request a more topical and targeted CfP be developed for each offering to potentially increase interest.
- Workshops and Tutorials at GC 2017
  - There was a total of 700 submitted workshop papers with 300 accepted. This yielded an acceptance ratio to 42.8%
  - Workshop Chairs: Byrav Ramamurthy (University of Nebraska Lincoln USA), Massimo Tornatore (Politecnico di Milano, Italy), Bala Natarajan (Kansas State University, Manhattan, KS USA)
  - It was noted that none of the workshop Chairs were active members of TAOS.
  - Tutorial Chairs: Tricha Anjali (International Institute of Information Technology), Caterina Scoglio (Kansas State University, Manhattan, KS USA), Rosa Zheng (Missouri University of Science and Technology, Rolla USA)

## 5. Other Activities/Updates

- ICC 2018 hosted the 4<sup>th</sup> ICC Workshop on Optical Wireless Communications
  - Co-Chairs: Mauro Biagi (Sapienza Univ. of Rome, Italy) (TAOS), Zabih Ghassemlooy (Northumbria Univ., Newcastle, UK), Anna Maria Vegni, (Univ. of RomaTre, Italy)
  - 48 submissions, 20 accepted (acceptance rate 40%).
- Globecom 2018 workshop proposal P4 Data Plane Programmability

- Chairs: Filippo Cugini (CNIT, Italy) (TAOS), Francesco Paolucci (Scuola Superiore Sant'Anna, Italy)
- Editorships of TAOS Members
  - Action item to all members to email secretary (Steve Hranilovic) all editorial activities for the last year.
- Distinguished Lecturers
  - Tarek El-Bawab (2016-7 & 2018-9) – reports that activities are anticipated in the second half of year
- TAOS Recertification
  - TAOS submitted reports for May 2017 recertification.
  - No Feedback has been received from the TC's Recertification Committee.
- Upcoming conferences:
  - Athanassios mentioned that Chairs for GC 2019 not yet announced and that ICC 2020 also not yet announced. He reviewed the nomination process where every TC sends a ranked list of candidates. He then reviewed the status of symposium Chair approvals:
  - 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
  - ICC 2020 (Dublin)
    - Fabrizio Granelli as Chair for SAC-ANS: – pending approval
    - Taisir E. H. Elgorashi as co-Chair for GCSN: – pending approval
    - Steve Hranilovic as co-Chair for ONS – pending approval
- Other TAOS Sponsored Conferences
  - TAOS endorsed the following events: NETWORKS 2018, Med-Hoc-Net 2018, ICNC 2019, NOF 2018.
- Editor TAOS Newsletter
  - Jochen Maes (Nokia) 2014- 2018(June) has been editor for some time.
  - Membership to send Nominations for TAOS Newsletter to be sent to secretary (Steve).
- Symposium Chairs/co-Chairs
  - Nominations for chairs for upcoming GC and ICC to be sent to secretary (Steve).

## 6. Awards

Best paper plaques were presented to the following papers at this meeting. Note the (\*) denotes authors present to accept award.

- 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 (authors' representative for plaque collection: Jona Beysens)
- 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.
- ONS Best Paper Award for ICC 2018
  - "Achieving Minimum Error in MISO Optical Spatial Modulation" by A. Yesilkaya, T. Cogalan, E. Panayirci, H. Haas (\*) and H. V. Poor
- GCSN Best Paper Award for ICC 2018
  - "Realizing Green Symbol Detection Via Reservoir Computing: An Energy-Efficiency Perspective" by R. Shafin, L. Liu, J.D. Ashdown, J.D. Matyjas, M. Medley, B. Wysocki, Y. Yi
- ANS Best Paper for ICC 2018
  - Not awarded in this conference.

## 7 Other Business Arising

- No other business was raised.

The meeting was adjourned at around 19:15.

Attachments: 1. Meeting Slides

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

ICC 2018 TC Meeting, 18:30-19:30,  
Liberty Ballroom Level, Kansas City, USA

Athanassios (Thanassis) Manikas

Chair, TAOS

21st May 2018

# TAOS Agenda

- 1 Introductions
- 2 Approval of the Globecom 2017 TAOS Meeting Minutes (Singapore)
- 3 Newsletters and Sponsorships
- 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 GL 2017 meeting minutes (Singapore)

- The GL 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/2018/05/minutes\\_of\\_meetingGC17slides.pdf](http://taos.committees.comsoc.org/files/2018/05/minutes_of_meetingGC17slides.pdf)

status: pending approval

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

### 3. Newsletters and Sponsorships

- **Newsletter :**

- ▶ The 9th 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 ICC-18 (Kansas City): Comparison with Previous Conferences

City	Conference	Sub	Acc	Acc%
Abu Dhabi	Globecom 2018	2613	-	-
<b>Kansas City</b>	<b>ICC 2018</b>	<b>2431</b>	<b>971</b>	<b>39.9</b>
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 (ICC 2018):

- ▶ Yi Qian (University of Nebraska-Lincoln, USA)
- ▶ Rose Qingyang Hu (Utah State University, USA) and
- ▶ Lisandro Z. Granville (Federal University of Rio Grande do Sul, Brazil)

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

		Subm	Acc	%
GL 18	SAC-1 ANS	30	-	-
ICC 18	SAC-1 ANS	15	5	33.3
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
	mean	(27)		

- SAC-1 ANS Track Chair (ICC 2018):

- ▶ Khairi A Hamdi (University of Manchester, UK) - [TAOS](#)

## 4.5. ONS: Comparison with Previous Symposia

		Submitted			Accepted			Acc Rate %
		Syst	Net	Total	Syst	Net	Total	
GL18	ONS	65%	35%	<b>68</b>	-	-	-	-
ICC 18	ONS	41%	59%	<b>71</b>	57%	43%	<b>30</b>	42.3
GL 17	ONS	54%	46%	<b>84</b>	55%	45%	<b>33</b>	39.3
ICC 17	ONS	46%	54%	<b>100</b>			<b>39</b>	39.0
GL 16	ONS	48%	52%	<b>67</b>	61%	39%	<b>28</b>	41.8
ICC 16	ONS	55%	45%	<b>108</b>	42%	58%	<b>43</b>	39.8
GL 15	ONS			<b>85</b>			<b>33</b>	38.8
ICC 15	ONS	50%	50%	<b>94</b>			<b>40</b>	42.0
GL 14	ONS	47%	53%	<b>75</b>			<b>30</b>	40.0
ICC 14	ONS			<b>75</b>			<b>30</b>	40.0
GL 13	ONS	51%	49%	<b>63</b>	50%	50%	<b>24</b>	
	mean			(81)				

- ONS Symposium Chairs (ICC 18)

- ▶ Tarek El-Bawab (Jackson State University, USA) - **TAOS**
- ▶ Nasir Ghani (University of South Florida, USA)

## 4.6 GCSN: Comparison with Previous Symposia

		Submitted			Accepted			Acc Rate %
		CS	Net	Total	CS	Net	Total	
GL 18	GCSN	34%	66%	<b>113</b>				
ICC 18	GCSN	43%	57%	<b>108</b>	33%	67%	<b>42</b>	<b>38.9</b>
GL 17	GCSN	43%	57%	<b>114</b>	43%	57%	<b>44</b>	38.6
ICC 17	GCSN	40%	60%	<b>115</b>			<b>44</b>	38.3
GL 16	GCSN	34%	66%	<b>98</b>	32%	68%	<b>38</b>	38.7
ICC 16	GCSN			<b>109</b>			<b>42</b>	38.5
GL 15	GCSN			<b>107</b>			<b>39</b>	36.5
ICC 15	GCSN			<b>119</b>			<b>43</b>	36.1
GL 14	GCSN			<b>108</b>			<b>42</b>	38.8
ICC 14	GCSN			<b>105</b>			<b>41</b>	39.0
GL 13	GCSN			<b>92</b>			<b>36</b>	39.0
	mean			(108)				

- GCSN Symposium Chair (ICC 18)

- ▶ Jinsong Wu (Universidad de Chile, Chile)
- ▶ Fabrizio Granelli (University of Trento, Italy) - **TAOS**

## 4.7. Statistics - Workshops and Tutorials

		Subm	Acc	%
ICC 18 Workshops	Number of Workshops	33	20	60.6
	Total Workshop papers	700	300	42.8
ICC 18 Tutorials	Number of Tutorials	68	24	35.3

- Workshop Chairs:

- ▶ Byrav Ramamurthy (University of Nebraska Lincoln USA)
- ▶ Massimo Tornatore (Politecnico di Milano, Italy)
- ▶ Bala Natarajan (Kansas State University, Manhattan, KS USA)

- Tutorial Chair

- ▶ Tricha Anjali (International Institute of Information Technology)
- ▶ Caterina Scoglio (Kansas State University, Manhattan, KS USA)
- ▶ Rosa Zheng (Missouri University of Science and Technology, Rolla USA)

## 5. Other Activities/Updates

- ICC 2018 hosted the 4th 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 48 accepted papers 20 (acc. Rate 40%)
- Globecom Workshop Proposal - P4 Data Plane Programmability
  - ▶ Chair
    - ★ **Filippo Cugini** , CNIT, Italy (**TAOS**)
    - ★ **Francesco Paolucci** , Scuola Superiore Sant'Anna, Italy



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

- **Editorships**

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

- **Distinguished Lecturers**

- ▶ Tarek El-Bawab (2016-2017, 2nd term: 2018-2019)

- **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

#### ● **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**

#### ● **ICC 2020 (Dublin)**

- ▶ Chair for **SAC-ANS**: Fabrizio Granelli - **pending approval**
- ▶ co-Chair for **GCSN**: Taisir E. H. Elgorashi - **pending approval**
- ▶ co-Chair for **ONS**: Steve Hranilovic - **pending approval**

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

### 5.2. Other TAOS Sponsored Conferences

- **NETWORKS 2018** : <https://networks2018.upct.es/>
  - ▶ TAOS reps: Fabrizio Granelli , Walter Cerroni, George Rouskas
- **Med-Hoc-Net 2018** : <https://networks2018.upct.es/>
  - ▶ Athanassios Manikas, Fabrizio Granelli, Evan Venieris
- **ICNC 2019** : <https://networks2018.upct.es/>
  - ▶ Fabrizio Granelli, Athanassios Manikas, Evan Venieris
- **NOF 2018** : <https://networks2018.upct.es/>
  - ▶ Vidhya Sridhar, Fabrizio Granelli, Jaafar Elmirghani

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

### 5.3. Editor TAOS Newsletter

- Editor, TAOS Newsletter: Jochen Maes (Nokia) 2014- 2018(June)
- New appointment (for 3 years): ??
- Chairs/Co-Chairs
  - ▶ Globecom 2020 (Taipei): Chairs/coChairs
  - ▶ ICC 2021 (Montreal):

## 6. TAOS Best Paper Awards

- GL 2017 (Singapore)
- ICC 2018 (Kansas City)

## 6.1 ONS Best paper - GL 2017

- The TAOS Best Paper Awards in the **GL 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

## 6.2 ONS Best paper - ICC 2018

- The TAOS Best Paper Awards in the **ICC 2018** 's Symposium on **"Optical Networks and Systems" (ONS)** ,  
is presented to the paper:

### Achieving Minimum Error in MISO Optical Spatial Modulation

- Authors:
  - ▶ Anil Yesilkaya
  - ▶ Tezcan Cogalan
  - ▶ Erdal Panayirci
  - ▶ Harald Haas (\*)
  - ▶ H. Vincent Poor

## 6.3. GCSN Best Paper - GL 2017

- The TAOS Best Paper Awards in the **GL 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.



## 6.4. GCSN Best Paper - ICC 2018

- The TAOS Best Paper Awards in the **ICC 2018** 's Symposium on **"Green Communications Systems and Networks" (GCSN)** , is presented to the paper:

### Realizing Green Symbol Detection Via Reservoir Computing: An Energy-Efficiency Perspective

- Authors:
  - ▶ Rubayet Shafin;
  - ▶ Lingjia Liu;
  - ▶ Jonathan D Ashdown;
  - ▶ John D. Matyjas;
  - ▶ Michael Medley;
  - ▶ Bryant Wysocki;
  - ▶ Yang Yi

## 6.5. ANS Best Paper - GL 2017

- 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
- Authors' representative (collection of plaques): Jona Beysens, KULeuven

## 6.6. ANS Best Paper - ICC 2018

- The TAOS Best Paper Awards in the **ICC 2018** 's **"Access Networks and Systems" (ANS)** Track of the Selected Areas in Communications (SAC) Symposium, is presented to the paper:
-

## 7. Any Other Business

**Thank You!**