

GlobalEM Memos

Memo XX

20th July 2026

GlobalEM 2026 Technical Program Memo

- Technical Program Statistics for GlobalEM 2026 -

Prepared by GlobalEM 2026 Organizing Committee

This Memo documents selected parameters relating to the technical program of GlobalEM 2026, held at The Commons (Baekyangnuri), Yonsei University, Seoul, Republic of Korea, from 29 June to 3 July 2026. It follows the concise statistical format used for the AMEREM, EUROEM, and ASIAEM conference series and is intended to assist future GlobalEM organizers in technical-program planning and post-conference assessment.

GlobalEM 2026 was organized by the Korean Institute of Electromagnetic Engineering and Science (KIEES) and the SUMMA Foundation, and co-organized by the BK21 Global Education and Research Center for Convergence Technology. The meeting continued the technical legacy of NEM, AMEREM, EUROEM, and ASIAEM while expanding the program toward electromagnetic security, critical-infrastructure resilience, RF directed energy, and emerging applications.

The paper statistics below distinguish submitted papers, papers scheduled in the Final Program, and papers actually presented. Best Paper Award sessions repeated selected candidate papers and are therefore excluded from the count of unique technical papers.

Table 1. Quantity of Papers, Participants, and Exhibitors for GlobalEM 2026

Parameter	GlobalEM 2026
Number of papers submitted	148
Number of papers withdrawn before the Final Program	8
Number of unique technical papers scheduled in the Final Program	140
Number of regular oral papers scheduled (20 minutes)	94
Number of poster papers scheduled	46
Number of unique technical papers actually presented	140
Number of oral papers actually presented	94
Number of poster papers actually presented	46
Number of keynote speeches	3
Number of plenary presentations	7
Number of workshops/tutorials	5

Parameter	GlobalEM 2026
Number of unique registered participants	276
Number of sponsor and exhibitor organizations	14
Number of exhibition booths	12
Other associated meeting: IEC TC 77/SC 77C Project Meetings	1

Note: Eight submitted papers were withdrawn before the Final Program was finalized. The Final Program therefore contained 140 unique technical papers: 94 oral papers and 46 poster papers. One oral paper by D. V. Giri was allocated two consecutive presentation slots; this additional slot does not represent an additional paper.

	Monday June 29	Tuesday 30-Jun	Wednesday July 01	Thursday July 02	Friday July 03
08:00		Registration	Registration	Registration	Registration
09:00		Opening	Oral Session TS-Wed1-1/2/3	Oral Session TS-Thu1-1/2/3	
10:00		Keynote Speech	Coffee Break	Coffee Break	Workshop
10:30			Plenary Session 2	Plenary Session 4	
11:00					Coffee Break
12:00		Lunch	Lunch	Lunch	Workshop
12:30					
13:00	Registration	Oral Session TS-Tue1-1/2 Award Session1			
13:30	Workshop & Tutorial		Plenary Session 3	Oral Session TS-Thu2-1/2/3	
14:00		Coffee Break	Coffee Break	Coffee Break	
15:00	Break	Poster Session 1	Poster Session 2	Poster Session 3	
16:00	Workshop & Tutorial	Oral Session TS-Tue2-1/2 Award Session2	Oral Session TS-Wed2-1/2/3	Oral Session TS-Thu3-1/2/3	
17:00		Plenary Session 1			
18:00					
19:00	Welcome Reception		Gala Dinner		
20:00					
21:00					

GlobalEM 2026 Schedule at a Glance

In Table 2, we present the organizational considerations for the technical paper program. The regular paper sessions were conducted from Tuesday, 30 June, through Thursday, 2 July. Monday and Friday were primarily devoted to workshops and tutorials, while keynote and plenary programs were scheduled outside the regular oral-paper blocks.

Table 2. Organizational Considerations for GlobalEM 2026

#	Parameter	GlobalEM 2026
1	Unique technical papers scheduled	140
2	Regular technical-session days	3
3	Oral presentation time blocks	7
4	Poster papers	46
5	Scheduled oral papers	94
6	Scheduled oral presentation slots	95
7	Presentations per full oral session	5
8	Regular oral session tracks	19
9	Maximum parallel oral rooms	3
10	Oral papers actually presented	94
11	Keynote presentations	3
12	Plenary presentations	7

The oral program comprised 19 regular session tracks distributed over seven time blocks. A total of 94 unique oral papers were scheduled. Because one paper by D. V. Giri was allocated two consecutive presentation slots, the program contained 95 oral presentation slots. The double-slot allocation did not increase the number of unique technical papers.

The program also included three keynote speeches, seven plenary presentations in four plenary sessions, one workshop and two tutorials on Monday, and two workshops on Friday. The exhibition was open for three days, from 30 June through 2 July.

The three-parallel-room arrangement was adequate for the program size and limited audience fragmentation. As emphasized in earlier AMEREM/EUROEM/ASIAEM Memos, the number of parallel sessions should be governed by technical coherence and participant access rather than by minimum numerical capacity alone.

Table 3 summarizes the principal leadership positions responsible for the organization and technical program. The full Technical Program Committee comprised both an international committee and a Korean committee, enabling continuity with the established GlobalEM technical community while strengthening local review and session management.

Table 3. Principal Conference and Technical Program Leadership

Role	Name(s)	Affiliation(s)
General Chair	Jong-Gwan Yook	Yonsei University, Korea
General Co-Chairs	Yeon-Choon Chung Jin-Soo Choi	Seokyeong University, Korea ADD, Korea
General Vice-Chair	Tae-Heon Jang	Global EMH, Korea
Advisory Committee Chair	Jae-Wook Lee Chang-Soo Huh Wan-Soo Nah Gun-Sik Park Byeong-Ho Moon Donghwi Lee Hoon Chae	Korea Aerospace University, Korea Inha University, Korea Sungkyunkwan University, Korea Seoul National University, Korea LIG Defense & Aerospace, Korea Hanwha Systems, Korea Hanwha Aerospace, Korea
TPC Chairs	Carlos Romero Jong-Hwa Kwon	armasuisse, Switzerland ETRI, Korea
TPC Vice-Chairs	Richard Hoad Hyun-Ho Park	QinetiQ, UK University of Suwon, Korea
Award Chairs	Nicolas Mora Parra Ick-Jae Yoon	National University of Colombia, Colombia Chungnam National University
Special Session Chairs	Seung-Young Ahn Young-Woo Kim	KAIST, Korea Sejong University, Korea
Workshop/Tutorial Chairs	Woo-Sang Lee Eun-Mi Choi	ADD, Korea UNIST, Korea
Publication Chairs	Jung-Hoon Han Sun K. Hong	Korea Aerospace University, Korea Soongsil University, Korea
Exhibition Chair	Eakhwan Song	Kwangwoon University, Korea
Exhibition Co-Chairs	Jae-Hyun Park Jeong-Hee Jin Dong-Ki Yoon	I-Spec, Korea KER, Korea Replex, Korea
Publicity/Local Chairs	Jeong-Min Woo Up Namgung Insang Yoo	Incheon National University, Korea NSR, Korea Yonsei University, Korea
Finance Chairs & Secretary	Han-Chul Shin Jong-Hoon Kim	RAPA, Korea EMC Doctors, Korea
Government and Local Relations Chairs	Su-Young Park Il-Yong Lee	RRA, Korea RRA, Korea
International Relations Chair	Janet O'Neil	ETS-Lindgren, USA

Technical scope represented in the program

- HPEM sources, antennas, facilities, and high-power microwave components
- Coupling to structures, cables, power networks, and complex platforms
- Measurement techniques, electro-optic sensing, calibration, and metrology
- IEMI threats, electromagnetic effects, protection, and system-level testing
- Lightning electromagnetic effects and long-term current observations
- Analytical and numerical modeling, statistical methods, and validation
- Electromagnetic security, invisible threats, and hardware security by design
- Anti-drone applications, RF directed energy, critical-infrastructure resilience, and mitigation technologies

The principal program structure retained the long-standing GlobalEM technical areas while using special and joint sessions to address cross-cutting topics that did not fit within a single traditional Technical Committee.

GlobalEM 2026 Venue and Technical Tour Facilities

GlobalEM 2026 was held at The Commons (Baekyangnuri), an integrated conference complex located at the center of Yonsei University's Sinchon Campus. The technical tour on Friday, 3 July, visited HCT and the Communication Conformity Assessment Center in Icheon, providing participants with direct exposure to Korean electromagnetic testing and conformity-assessment infrastructure.



The Commons (Baekyangnuri), Yonsei University - the GlobalEM 2026 conference venue.



HCT and Communication Conformity Assessment Center, visited during the GlobalEM 2026 Technical Tour.

The official website also published a post-conference photo album. The images above are reproduced from the GlobalEM 2026 Final Program Book for documentation of the venue and tour facilities.

Table 4 presents the number of scheduled regular oral presentation slots according to the Technical Committee and Special Session groupings shown in the Final Program. Since one paper was allocated two

consecutive slots, the table contains 95 presentation slots corresponding to 94 unique oral papers. Joint session labels are retained because several sessions were intentionally organized across multiple technical areas. Best Paper Award sessions are excluded because they repeated candidate papers from the regular program.

Table 4. Scheduled Oral Presentation Slot Count by Technical Committee and Special Session

Topic	Session Title	Total	Cumulative
TC1	Sources, Antennas, Facilities I-II	10	10
TC3	Measurement Techniques I-II	10	20
TC7	Analytic and Numerical Modeling I-II	10	30
SS02	Invisible Electromagnetic Threats and Related Topics I-II	10	40
TC2	Coupling / Structures / Cables	5	45
TC4	IEMI Threats / Effects / Protection	5	50
TC5	System Level Protection and Testing	5	55
TC6	Lightning EM Effects / Measurement	5	60
TC9	Antenna Design / Radiation	5	65
SS03	Use of HPEM for Anti-Drone Applications	5	70
TC10/TC3	Statistical Methods in HPEM and Related Topics	5	75
TC6/P01/TC17	Lightning EM Effects / Measurement and Related Topics	5	80
SS04/TC2	Electromagnetic Reduction Technologies and Related Topics	5	85
SS01/TC15/TC16	HPEM Source Outdoor Testing and Related Topics	5	90
TC5/SS05/P01	System Level Protection and Testing and Related Topics	5	95

Note: The table counts oral presentation slots rather than unique papers. One paper by D. V. Giri was assigned two consecutive slots in session TC6/P01/TC17. Therefore, 95 oral presentation slots correspond to 94 unique oral papers.

The regular oral program therefore contained 94 scheduled papers. Together with 46 poster papers, the Final Program contained 140 unique technical papers. The final organizer count records 140 actual presentations: 94 oral and 46 posters.

The relatively high poster share (32.9% of actual technical papers) made it possible to retain only three parallel oral rooms while providing presentation opportunities across a broad range of HPEM and electromagnetic-security topics. Poster sessions were held in the exhibition lobby to encourage discussion among authors, participants, and exhibitors.

Table 5 gives the country distribution of the 140 unique technical papers included in the Final Program. Papers are counted once, even when a paper was assigned more than one presentation slot. For papers involving institutions from more than one country, the country was assigned according to the first listed institutional affiliation in the Final Program Book.

Table 5. Scheduled Technical Papers by Country in GlobalEM 2026

Country	No. of Papers Scheduled
Republic of Korea	80
China	11
Japan	10
United States of America	6
United Arab Emirates	5
United Kingdom	5
France	4
Malaysia	4
Sweden	4
The Netherlands	3
Switzerland	2
Australia, Colombia, Croatia, Italy, Poland, and Russia	1 each
Total	140

The Final Program represented 17 countries. Korean institutions accounted for 80 scheduled papers, reflecting the host-country effect and strong domestic participation. China and Japan were the next largest contributors, while significant contributions were also received from Europe, North America, and the Middle East.

All 140 unique papers included in the Final Program were accounted for as 94 oral papers and 46 poster papers. The apparent difference between 95 oral presentation slots and 94 oral papers results from one paper being allocated two consecutive slots.

The organizer's final count was therefore 140 actual technical presentations. Of the original 148 submissions, eight papers were withdrawn before the Final Program was finalized.

Registration and industrial participation

GlobalEM 2026 had a total of 276 registered participants, including 214 paid registrants, 20 sponsor and exhibitor registrants, and 42 invited participants.

Table 6. GlobalEM 2026 Registration Summary

Registration Category	Count	Remarks
Paid registrations	214	Includes 3 point registrations
Sponsor/exhibitor registrations	20	Sponsor and exhibition personnel
Invited registrations	42	Invited speakers and related participants
Unique registered participants	276	

Award

GlobalEM 2026 presented the Best Paper Award, Best Student Paper Award, and Young Scientist Award during the Gala Dinner on Wednesday, 1 July. The Best Paper Award was determined after dedicated

candidate presentations in two award sessions on Tuesday afternoon.

Table 7. GlobalEM 2026 Best Paper Award Recipients

Paper ID	Paper Title	Authors / Affiliation
Thu2-2-3	Overview of Lightning Current Observation at Tokyo Skytree (2012-2025)	Toru Miki, Ami Kudo, Mikiyisa Saito - CRIEPI, Japan
Wed2-2-3	Design and Analysis of a High-Voltage Broadband Folded Sinuous Antenna	Up Namkoong, Jae-Yeop Jeong - NSR, Korea
Thu3-3-5	A Multi-Megawatt Microwave Power Divider	Zubair Akhter et al. - Technology Innovation Institute, UAE
Thu2-2-5	Simulation-Based Analysis of Conducted Disturbance Propagation Induced by Electromagnetic Pulses in Building Power Networks	Laurine Curos, Isabelle Lachaud - CEA-Gramat, France
Wed2-3-2	Field-calibrated Intense Ka-band Pulse Measurements with Electro-optic Sensors	Dong-Joon Lee, Young-Pyo Hong, Ingeun Lee - KRISS/ADD, Korea

Table 8. Other GlobalEM 2026 Awards

Award	Recipient	Associated Presentation
Best Student Paper Award	Niels Elshove	Pulsed Electromagnetic Field Generation Using Timed Array Structures
Young Scientist Award	Yi Zhou	A MV-level Pulsed Current Injection Testing Platform for Overhead Power Lines

Summary and lessons for future GlobalEM organizers

GlobalEM 2026 successfully continued the AMEREM/EUROEM/ASIAEM heritage while broadening the program toward electromagnetic resilience, critical-infrastructure protection, hardware security, RF directed-energy testing, and AI-enabled technologies. The conference demonstrated that the traditional HPEM technical chain - sources, propagation and coupling, effects, measurement, modeling, protection, and validation - remains central, but is increasingly being applied at system and infrastructure levels.

- The Final Program contained 140 unique technical papers, comprising 94 oral papers and 46 poster papers. The submission-to-program rate was 140/148, or approximately 94.6%.
- Three parallel oral rooms were sufficient when combined with three substantial poster sessions.
- Future reports should preserve separate counts for submissions, rejections, withdrawals, scheduled papers, actual presentations, and unique participants.
- Technical Committee statistics should be exported directly from the submission system to avoid ambiguity when joint and special sessions are used.
- The integration of technical sessions, standards activities, exhibition, awards, and technical tours strengthened the symposium's role as a forum for HPEM and electromagnetic security.

