

Ministry of Defence
Military Technical College



Conference Program



The International Scientific Conference of
Military Technical College

2025



Program of International Scientific Conference of the Military Technical College 2025

Allocated Rooms and Halls for Sessions, Workshops, and Seminars of the International Scientific Conference of the Military Technical College 2025

S - Building:

- Ibraheim Abd El-Naby Hall
- Abd El-Hameed Shawky Hall

College Library:

- Registration
- 10th of Ramadan Hall**
- Opening the Conference & Closing Session
- Medhat Mustafa**

C - Building:

- ACG- Hall
- Comp. & AI. Hall
-

E - Building:

- E06 Hall
- E07 Hall

PG - Building:

- From Room 4 to Room 13
- Poster Session Hall
- Abdelaziz Seif Hall



AMME-22

International Conference
on Applied Mechanics and
Mechanical Engineering



ASAT-21

International Conference on
Aerospace Sciences & Aviation
Technology



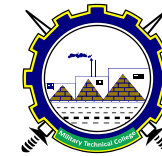
ICEENG-15

International Conference on
on Electrical Engineering



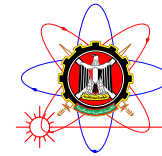
ICCAE-16

International Conference
on Civil and Architecture
Engineering



ICEE-13

International Conference on
Chemical and Environmental
Engineering



ICMEP-13

International Conference
on Mathematics and
Engineering Physics



The 21st International Conference on Aerospace Sciences & Aviation Technology (ASAT-21)

Monday 12 May 2025 - Day 1

Time	Hall	Session Name
08:00 - 09:00	College Library	Registration
09:00 - 11:45	10 th of Ramadan Hall	Opening the Conference & Opening Lecture
12:00 - 13:15	ACG Dept. Hall C- Building	Aeroacoustics & Vibration
	30-June Hall MTC-Commandant Building	A New Theory of Lift: 100 years after a Mathematical War in the Background of the Great War Prof. Haitham Taha - UC Irvine-USA
13:30 - 1500	ACG Dept. Hall C- Building	workshop 1: Development Planning Space Missions Prof. Abobakr Elhady - Chinese University

Tuesday 13 May 2025 - Day 2

Time Hall	08:30 - 10:00		10:30 - 12:00		13:00 - 14:45
ACG Dept. Hall C- Building	Aerospace, Aerodynamics & Mechanics of Flight I	Break	Aerospace, Aerodynamics & Mechanics of Flight II	Break	Workshop 3 Maintenance and Full Service of Training Plane K8-E "AAM" Arab Organization for Industrialization (AOI)
Comp. and AI Dept. Hall C- Building			Workshop 2 Wind Tunnel Experiments Aircraft Mechanics Department - MTC		Workshop 4 Private Satellite Assembly Facility in Egypt in Cooperation with Open Cosmos Open Cosmos Ltd





The 21st International Conference on Aerospace Sciences & Aviation Technology (ASAT-21)

Wednesday 14 May 2025 - Day 3

Time Hall	08:30 - 10:00		10:30 - 12:00		13:00 - 14:45
ACG Dept. Hall C- Building	Aerospace Components Design Optimization	Break	Aerospace materials & Structures	Break	Propulsion
Comp. and AI Dept.Hall C- Building			Workshop 5 Space Mission Support - 2050 Vision Prof. Abobakr Elhady-Chinese University		Workshop 6 Manufacturing Of Plane Chassis Components For French DASSAULT Arab Organization for Industrialization (AOI)
30-June Hall MTC-Commandant Building					Aerodynamics, Orbital Mechanics & Satellite Systems

Thursday 15 May 2025 - Day 4

Time Hall	08:30 - 10:00
ACG Dept. Hall C- Building	Aerospace Thermophysics, Remote Sensing & Unmanned Aerial Vehicles





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		8:00 - 9:00	9:00 - 11:45		12:00 - 13:15		13:30 - 1500
Monday 12 May	قاعة قسم التأمين الإلكتروني	Registration	Opening the conference & opening lecture	Break	(S1) Aeroacoustics & Vibration	Break	(W1) Development Planning Space Missions Prof. Abobakr Elhady "Chinese University"
	قاعة 30 يونيو				(L1) A New Theory Of Lift: 100 Years After A Mathematical War In The Background Of The Great War. Prof. Haitham Taha "UCI"		



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		8:30 - 10:00		10:30 - 12:00		13:00- 14:45
Tuesday 13 May 2025	قاعة قسم التامين الإلكتروني	(S2) Aerospace, Aerodynamics & Mechanics of Flight I	Break	(S3) Aerospace, Aerodynamics & Mechanics of Flight II	Break	(W3) Maintenance and Full Service of Training Plane K8-E “ Arab Organization for Industrialization ”
	قاعة قسم الحاسب			(W2) Wind Tunnel Experiments – “MTC		(W4) Private Satellite Assembly Facility in Egypt in Cooperation with Open Cosmos “Open Cosmos Ltd.”



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		8:30 - 10:00		10:30 - 12:00		13:00- 14:45
Wednesday 14 May 2025	قاعة قسم التأمين الإلكتروني	(S4) Aerospace Components Design Optimization	Break	(S5) Aerospace materials & Structures	Break	(S6) Propulsion
	قاعة قسم الحاسب			(W5) Space Mission Support - 2050 Vision Prof. Abobakr Elhady “Chinese University”		(W6) Manufacturing Of Plane Chassis Components For French DESSULT® “ Arab Organization for Industrialization ”
	قاعة 30 يونيو					(S7) Aerodynamics, Orbital Mechanics & Satellite Systems



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		8:30 - 10:00		10:30 - 12:00		13:00
Thursday 15 May 2025	قاعة قسم التأمين الإلكتروني	(S8) Aerospace Thermophysics, Remote Sensing & Unmanned Aerial Vehicles	Break		Break	Closing



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Scientific Sessions

No	Session	Paper ID	Session panel
1	(S1) Aeroacoustics & Vibration	1-16-33	Prof. Mohamed Abdelfatah Col. Dr. Ibrahim M. Ateya Lt. Col. Dr. Mickael Selwan
2	(S2) Aerospace, Aerodynamics & Mechanics of Flight I	3-6-7-17-20	Lt. Col. Dr. Abdelmajed Mohamed Lt. Col. Dr. Ahmed Ayad Maj. Dr. Anwer Hashish
3	(S3) Aerospace, Aerodynamics & Mechanics of Flight II	21-22-27-35-36	Col. Dr. Sherif Saleh Lt. Col. Dr. Ahmed Ayad Maj. Dr. Anwer Hashish
4	(S4) Aerospace Components Design Optimization	4-5-15	Prof. Abobakr Elhady Col. Dr. Mohamed Kassem Col. Dr. Ashraf Kamal
5	(S5) Aerospace materials & Structures	26-28-29	Prof. Ahmed Anwar Col. Dr. Mohamed Kassem Col. Dr. Sherif Saleh
6	(S6) Propulsion	10-11-14-25-31	Maj. Gen. Prof. Ahmed Rashad Brig. Dr. Mostafa Khalil Lt. Col. Dr. Mohamed Elbayoumi



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7	(S7) Aerodynamics, Orbital Mechanics & Satellite Systems	9-12-30	Prof. Sara A. El-Bahloul Col. Dr. Mohamed Zakaria Col. Dr. Ashraf Kamal
8	(S8) Aerospace Thermophysics, Remote Sensing & Unmanned Aerial Vehicles	8-13-19-23	Prof. Ahmed Farag Lt. Col. Dr. Mohamed Elbayoumi Lt. Col. Dr. Ahmed Ayad

Workshops

No.	ID	Title	Presented by
1	W1	المهام الفضائية الخاصة بخطط التطوير (W1) Development Planning Space Missions	ا.د. / ابو بكر محمد الهادي عبد الحميد - الجامعة الصينية Day: Monday 12 th May Time: 1330 Room: قاعة قسم التأمين الإلكتروني
2	W2	تجارب النفق الهوائي Wind Tunnel Experiments	عقيد / محمد يحيى زكريا - الكلية الفنية العسكرية Day: Tuesday 13 th May Time: 1030 Room: قاعة قسم الحاسب
3	W3	أعمال عمرة طائرة التدريب K8-E Maintenance And Full Service Of Training Plain K8-E	الهيئة العربية للتصنيع Day: Tuesday 13 th May Time: 1300 Room: قاعة قسم التأمين الإلكتروني



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4	W4	Private Satellite Assembly Facility in Egypt in Cooperation with Open Cosmos	“Open Cosmos Ltd.” Day: Tuesday 13th May Time: 1300 Room: قاعة قسم الحاسب
5	W5	دعم المهام الفضائية-رؤية 2050 Space Mission Support - 2050 Vision	ا.د. /ابو بكر محمد الهادي عبد الحميد - الجامعة الصينية Day: Wednesday 14th May Time: 1030 Room: قاعة قسم الحاسب
6	W6	تصنيع أجزاء هياكل طائرات لصالح شركة الفرنسية DESSULT Manufacturing Of Plain Chassis Components For French DESSULT®	الهيئة العربية للتصنيع Day: Wednesday 14th May Time: 1300 Room: قاعة قسم الحاسب

Invited Speaker

1	L1	نظرية جديدة للرفع في ظل التطورات العالمية الكبرى Innovative Lifting Theory to Accommodate Global Developments	ا.د. هيثم محمد طه محمد - أستاذ بجامعة كاليفورنيا Day: Wednesday 14th May Time: 830 Room: قاعة 30 يونيو
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ASAT-21

(S1) Aeroacoustics & Vibration

Session board : Prof. Mohamed Abdelfatah Col. Dr. Ibrahim M. Ateya Lt. Col. Dr. Mickael Selwan	Day: Monday 12th May Time: 1200 Room: قاعة قسم التأمين الإلكتروني
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No.	Paper ID	Title
1	Asat21-1	Aeroelastic Coupled Mode Behavior of Swept Composite Wing E Elshazly, Mohammed Kassem and M A Elshafei
2	Asat2-16	Geometric Modifications for Noise Mitigation in Axially Rotating Fan Blades Saad-Eldin Taha, Mohamed Y.Zakaria and Mohamed Mahgoub Bassuoni
3	Asat2-33	Near-Field Crack Localization using Spectral Estimation Methods Ahmed Desoki, Mohamed Mahgoub and Hani Negm



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ASAT-21

(S2) Aerospace, Aerodynamics & Mechanics of Flight I

Session board : Lt. Col. Dr. Abdelmaged Mohamed Lt. Col. Dr. Ahmed Ayad Maj. Dr. Anwer Hashish	Day: Tuesday 13th May Time: 830 Room: قاعة قسم التأمين الإلكتروني
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No.	Paper ID	Title
1	Asat21-3	Aerodynamic Analysis and Wind Tunnel Testing of a MALE UAV Ahmed Magdy Eid, Ashraf M. Kamal, Mohamed Yehia Zakaria, and Omar El-Farouk
2	Asat21-6	Numerical Analysis for the Pressure Distribution along a Typical Fin-stabilized Missile Mahmoud A. Moalla, Sherif Saleh, and Mostafa Khalil
3	Asat21-7	On the Impact of Surface Thermal Conditions on Aero-heating to Hypersonic Vehicle Ahmed Yassin1, Mahmoud Y M Ahmed1, Osama K. Mahmoud
4	Asat21-17	Numerical Simulation on Retreating Blade Sections of a Small UAV Helicopter in Forward Flight Mohannad Y. Orabi, Ashraf M. Kamal, Mohamed Y. Zakaria and Mahmoud Y. M. Ahmed
5	Asat21-20	Parametric Investigation of Wing Geometric Characteristics for Enhancing UAV Endurance Shehab Hassouna , Ashraf M. Kamal and Mohamed Y. Zakaria



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ASAT-21

(S3) Aerospace, Aerodynamics & Mechanics of Flight II

Session board : Col. Dr. Sherif Saleh Lt. Col. Dr. Ahmed Ayad Maj. Dr. Anwer Hashish	Day: Tuesday 13th May Time: 1030 Room: قاعة قسم التأمين الإلكتروني
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No.	Paper ID	Title
1	Asat21-21	Influence of Winglets Design Parameters on Aerodynamic and Stability of a Blended Wing-Body Aircraft Ahmed M Sheneshen and Ashraf M kamal
2	Asat21-22	Integration of JSBSim and Unreal Engine for Flight Simulator Development and Verification: A Case Study on the Cessna T-37 Mohamed Awd Saber, Mohamed Y. Zakaria, Ashraf M Kamal
3	Asat21-27	Computational Assessment of Drag Behavior for Spiked Light Assault Missile Ahmed Fayez, Osama Kamal, Mahmoud Y M Ahmed
4	Asat21-35	Flight-based Tuning of Trajectory Prediction Tool for Free-Flight Cargo Payloads Marwa Aly , Mahmoud Y M Ahmed, and Mostafa Khalil
5	Asat21-36	Studying the Effect of Meteorological Conditions Uncertainties on the Artillery Accuracy Marwa Aly , Mahmoud Y M Ahmed , and Mostafa Khalil



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(S4) Aerospace Components Design Optimization

Session board : Prof. Abobakr Elhady Col. Dr. Mohamed Kassem Col. Dr. Ashraf Kamal	Day: Wednesday 14th May Time: 830 Room: قاعة قسم التأمين الإلكتروني
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No.	Paper ID	Title
1	Asat21-4	Design & Analysis of a Hot Air-Assisted Flying Wing UAV with Solar Energy Systems for Flight Time Enhancement Abdelrahman A. Shahin , Ezzeldeen M. Aboelkasim, Abdelrahman E. Awad, Ali A. Sakr, Amr K. Balat, Mahmoud A. Hassanein, Sara A. El-Bahloul, Wael Seddik Moustafa
2	Asat21-5	Investigating the Impact of Tubercle Modifications on the Performance of the NACA 643-221 Airfoil Haneen Mohamed, Ahmed El-Shamy, Dana E. Al-Ansari, Yousef N. Abdelazem, Mahmoud R. Habib, Mahmoud A. Hassanein, Sara A. El Bahloul, Wael Seddik Moustafa
3	Asat21-15	Systematic Assessment of DGFEM Accuracy for Supersonic Flow Mohamed Ezzat Abd ElMohsen, Tamer Heshmat Mohamed Aly Kasem and Mohamed Madbouly Abdelrahman



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(S5) Aerospace materials & Structures

Session board : Prof. Ahmed Anwar Col. Dr. Mohamed Kassem Col. Dr. Sherif Saleh	Day: Wednesday 14th May Time: 1030 Room: قاعة قسم التأمين الإلكتروني
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No.	Paper ID	Title
1	Asat21-26	Biaxial loading after low-velocity impact response on scarf repair glass fibre reinforced polymer (GFRP) Menatalla M. Ismail, Mostafa Shazly, Mohamed M. El-Sayed Seleman and George S. A. Fam
2	Asat21-28	Effect of shear lap joint combined parameters on adhesion strength of epoxy bonded Glass Fibre Reinforced Plastics composite H A Abou El Anein, M Shazly, E El-Kahsef and G S A Fam
3	Asat21-29	Vibration Analysis of Slender Cylindrical Shells: Numerical and Experimental Modal Analysis Ibrahim m. Rakha, Ahmed R. Goma and Adel Elsabbagh



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(S6) Propulsion

Session board : Maj. Gen. Prof. Ahmed Rashad Brig. Dr. Mostafa Khalil Lt. Col. Dr. Mohamed Elbayoumi	Day: Wednesday 14th May Time: 1300 Room: قاعة قسم التأمين الإلكتروني
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No.	Paper ID	Title
1	Asat21-10	Experimental investigation of 3D-printed tubular and swirl star grains as solid fuels for hybrid rocket engines M El-Naggar, Ahmed Farid Ayad, Anwer Hashish and Mahmoud Y M Ahmed
2	Asat21-11	Experimental investigation of the burning rate of solid propellant rocket motors M. Abdelmaksoud, A.M. Abdelall, M.A. Al-Sanabawy and Anwer Hashish
3	Asat21-14	Effect of Sawtooth Current Waveform on Plasma Dynamics in Electrothermal PPT: A Simulation Approach Marwa. M. Abo El-Hadeeda, M. A. Bourhamb, and M. A. Abd Al-Halim
4	Asat21-25	Combustion Instability in Lab-Scale HREs with Swirl Injectors: Pre- and Post-Chamber Effects Mohamed Elkhshen, Anwer Hashish, Mahmoud Y. M. Ahmed, and Ahmed Farid Ayad
5	Asat21-31	Development of a Physics-Based Dynamic Model For a Micro Gas Turbine Engine Ibrahim M.A Ibrahim



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(S7) Aerodynamics, Orbital Mechanics & Satellite Systems

Session board : Prof. Sara A. El-Bahloul Col. Dr. Mohamed Zakaria Col. Dr. Ashraf Kamal	Day: Wednesday 14th May Time: 1300 Room: قاعة 30 يونيو
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No.	Paper ID	Title
1	Asat21-9	Enhancing Earth-Mars Transfer Trajectories: A Conic Patch Method Using Evolutionary Algorithms A.M. Abdelaziz and S.K. Tealib
2	Asat21-12	LEO Communication Constellation Design Using Street of Coverage (SOC) Technique Gamal Elsayed , W. M. Elnaggar , Assem Farid , and Mostafa Khalil
3	Asat21-30	Hybrid Anomaly Detection in Spacecraft Telemetry Data Using Sparse Feature-Based Methods and Spatial-Temporal Generative Adversarial Networks Amr Akl and Hatem Elattar



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(S8) Aerospace Thermophysics, Remote Sensing & Unmanned Aerial Vehicles

Session board : Prof. Ahmed Farag Lt. Col. Dr. Mohamed Elbayoumi Lt. Col. Dr. Ahmed Ayad	Day: Thursday 15th May Time: 830 Room: قاعة قسم التأمين الإلكتروني
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No.	Paper ID	Title
1	Asat21-8	Numerical study on the effect of fuel jet design parameters for MILD combustion characteristics Ahmed K. Khodir, S M El-Behery, A H Elaskary
2	Asat21-13	ESEO satellite thermal model design analysis and validation of thermal solutions A.M Shokry, Ahmed Esmat, W. M. Elnaggar and Mohamed Elbayoumi
3	Asat21-19	Effect of Carbon Nanotubes Percentage on the Gage Factor in Structural Health Monitoring Sensors N Youssef , T Wafy, O Abdelsalam, O Dawood, Nariman E. Elbaly
4	Asat21-23	UAV with High-reaction of robotic arm by geometry control Enhanced with AI khaled oqda and Mohamed Alkalla