

16TH VIRTUAL UNISEC-GLOBAL MEETING

OPENING REMARKS

Alim Rustem Aslan, Istanbul Technical University UNISEC-TR Activities & UNISEC-Global Meeting

KEYNOTE SPEECH

Wataru Torii, ISAS/JAXA

Topic: Please help receive the UHF-band signal from the world's smallest Moon lander, OMOTENASHI

PRESENTATION

A Year in Review - UNISEC-Global

Nate Taylor, UNISEC-Global

BREAKOUT SESSION

All Participants

Moderator: Nate Taylor, UNISEC-Global

MIC6 PROGRESS REPORT

Carlos Rodriguez, Costa Rica Institute of Technology

Topic: MUSA Project Suborbital Flight

ANNOUNCEMENT & CLOSING

Rei Kawashima, UNISEC-Global and those who have announcements

DECEMBER 18, 2021 10:00 PM to 00:00 AM (JST)

http://www.unisec-global.org/virtual-meeting.html







16th Virtual UNISEC-Global Meeting 18 December 2021

Turkish UNISEC (UZTED) Activities



Prof.Dr. Alim Rustem Aslan, UZTED Coordinator, UNISEC Global PoC and StC Manager, Space Systems Design and Test Laboratory

Istanbul Technical University, Faculty of Aeronautics and Astronautics, Istanbul, Turkey

aslanr@itu.edu.tr





ITU/FAA Faculty of Aeronautics and Astronautics

Space Systems Design and Test Laboratory



Prof.Dr. Alim Rüstem ASLAN
Astronautical Engineering Department
Istanbul Technical University, Turkey



- Manager and founder, SmallSat Communication Laboratory
- International Academy of Astronautics Corresponding Member
- UNISEC-GLOBAL SC Member
- NATO CSO-STO AVT National Panel Member
- TA1ALM

Area of expertise: Design, analysis and development of pico- and nanosatellite (6 in orbit – 3 deorbited), manned and unmanned rotorcraft systems (including prototypes), computational fluid dynamics and aerodynamics, propulsion and, defense and education technologies. Worldwide hands on cansat, cubesat and rocketry course delivery.





Some Activities 2021-2022

- UZTED Establishment
- HATAY CANSAT at HATAY for regional students
- ISTANBUL CANSAT at IU and ITU for Elementary-Mid-High School Teachers
- NASA SPACE EXHIBITION Dec 2021-July 2022
- ICASE 2021 PAKISTAN
- MIC7 winners METU-ITU TEAM with PARS Project
- SHARJAHSAT1 Project and more CubeSat Projects
- UNISEC GLOBAL MEETING 2022







Established as a legal society
23 Members from
13 Universities (7 Public + 6 Private)
G. Assembly 19.09.2021



UNISEC-TR History



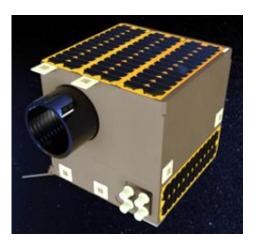
- Started Nov 2011, by three Istanbul Universities (ITU, NDU (TurAFA), YTU)
- Over 20 participant universities
- Support of government, aerospace industry and research institutions
- 12 meetings so far hosted by starters and supporting institutions
- Working on establishing UTEB as a legal entity
- Various joint CanSat/CubeSat activities/projects
- International cooperation



SAMANDAĞ KÜLTÜR MERKEZİ 9 EYLÜL 2021







Uzay Teknolojileri Uydular Model Uydular

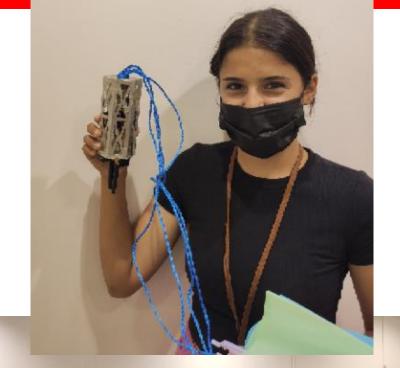


Prof.Dr. Alim Rüstem Aslan

Uzay Sistemleri Tasarım ve Test Laboratuvarı Kurucu ve Yöneticisi Uzay Mühendisliği Bölümü

İTÜ, Uçak ve Uzay Bilimleri Fakültesi



















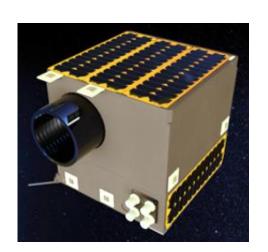


IÜ EDEBİYAT FAKÜLTESİ, 30 EYLÜL 2021 INISER



TÜBİTAK 4005 Yenilikçi Eğitim Uygulamaları

BILIME TUTKU PROJESI



Uzay Teknolojileri Uydular Model Uydular



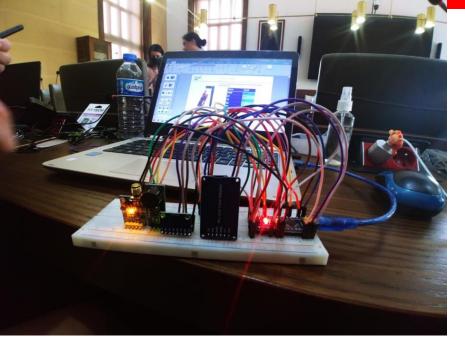
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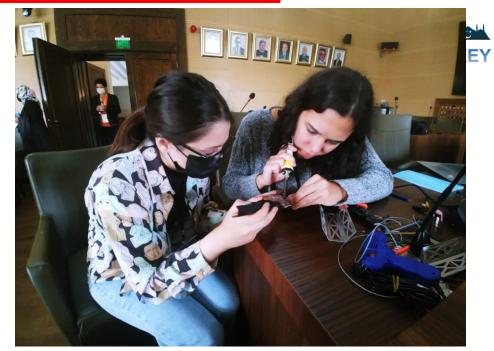
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CUBESAT PROJECTS



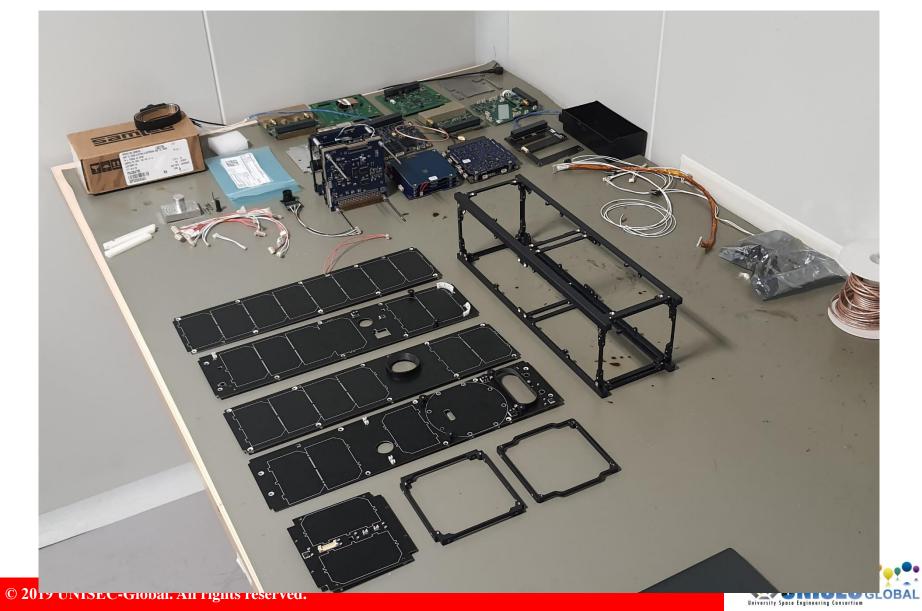
UNISEC TURKEY University Space Engineering Consortium

SHARJAHSAT-1 MISSION

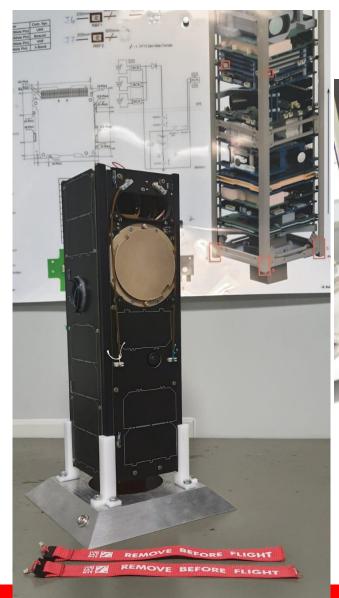
- UNIVERSITY of SHARJAH, UAE
- Istanbul Technical University
- Sabancı University
- Capacity development through
 - Science mission: star detection and sun observation
 - Imaging mission: earth and space
- Payload
 - X Ray detector
 - Optical camera
- Launch June-Oct 2022

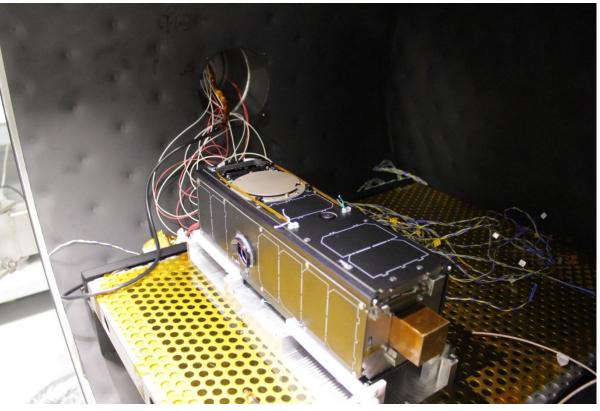








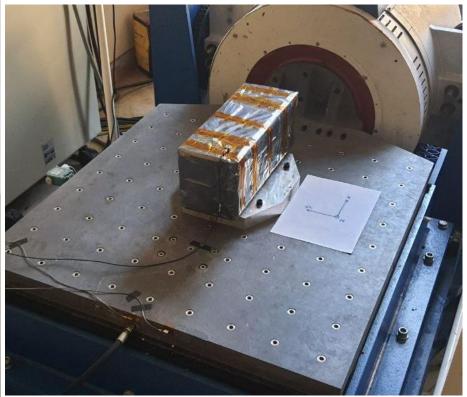
















UNISEC GLOBAL IN PERSON MEETING Oct-Nov 2022



 Istanbul Technical University, Suleyman Demirel Cultural/Conference Center





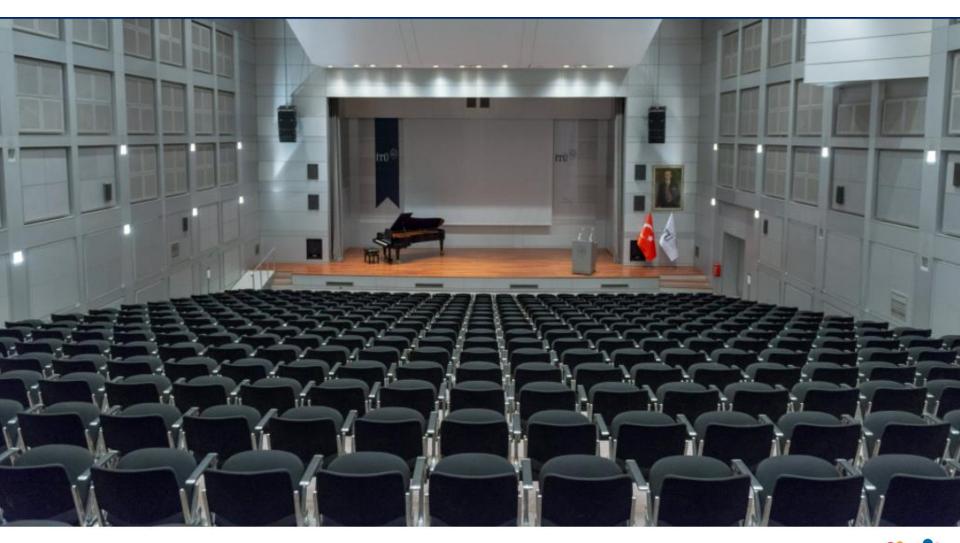
PROGRAM CONTENT (TBD)



- INVITED TALKS
- MIC8
- Regional Report Presentations
- Group Discussions
- Technical Visits
- Associated Events (trainings, side events)



SDKM CENTRAL ROOM, 460 pax









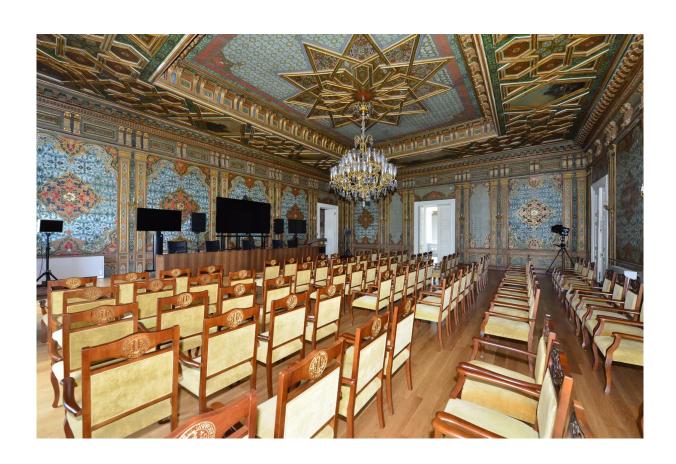














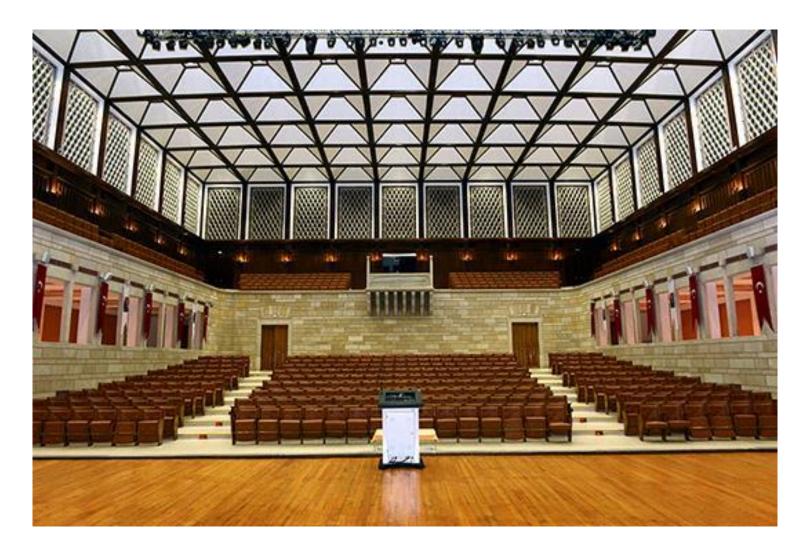






































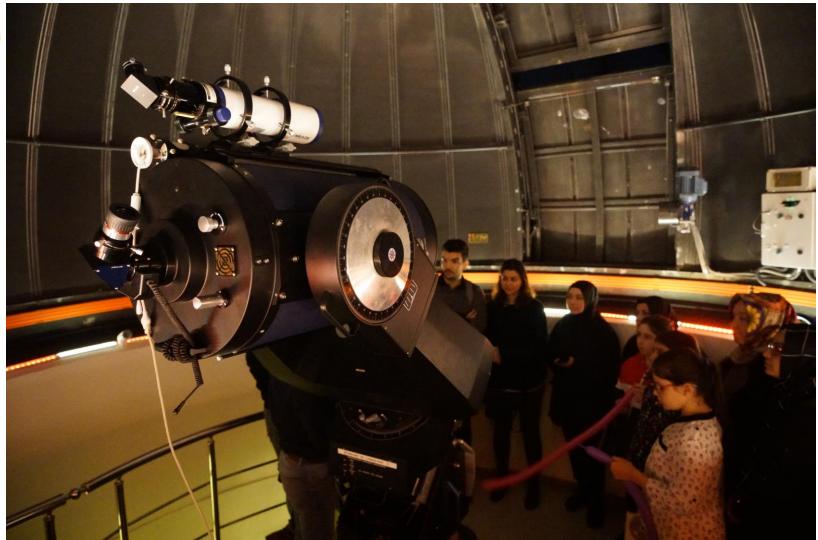




















































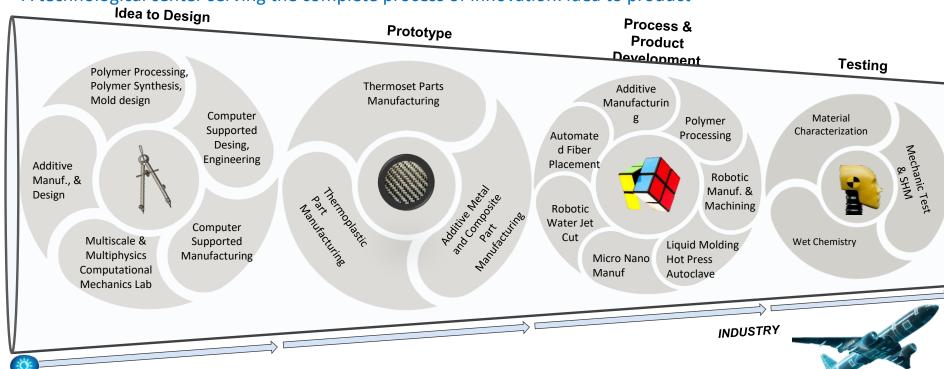


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Open Innovation

IDEA

A technological center serving the complete process of innovation: idea to product





Research and Application Areas







- Advanced Composites
- Functional Polymers
- Additive Manufacturing (Metal and Polymer)
- Functional Nano Materials





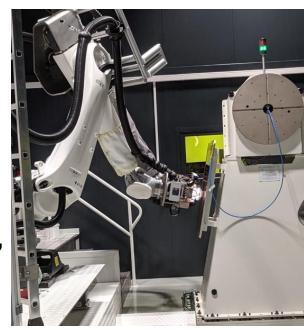
Research and Application Areas

Advanced Composites:

- Design, analysis and optimizations,
- Automated advanced composite part manufacturing,
- Graphene reinforced high performance composites,
- Thermoset and thermoplastic structures,
- Robotic based composite parts machining













Research and Application Areas

Additive Manufacturing (Metal and Polymer)

- Design, optimization and process simulations for;
 - Multi-functional structures,
 - Nano-particle/nano-fiber reinforced structures,
- Robotic-based large scale Additive Manufacturing,
- Nano-micro Additive Manufacturing,
- Additive Manufacturing of composite materials











We Look Forward To a Sustainable Fruitful Cooperation

Towards being a civilization living in the Solar System

Alim Rüstem ASLAN

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