

11th NANOSATELLITE SYMPOSIUM PROGRAM

**Presentations will be broadcasted through İTÜ Youtube Channel
(first session) and then USTTL-SSDTL YouTube Channel**

You may join sessions through indicated zoom links
please see website <https://nanosat11th.itu.edu.tr/> for up to date links

DAY 1: 17th October 2022 - Monday

- 08:00 - 17:00, Registration
- 09:00-09:30 Opening Ceremony with President of İTÜ, Prof.Dr. İsmail Koyuncu
- 09:30 - 10:15, Keynote Talk 1: Chair: Alim Rustem Aslan
 - Recent Japanese activities of micro/nano-satellites and their applications to business in the world, Prof. Shinichi Nakasuka, University of Tokyo, Japan
- 10:15 - 11:00, Keynote Talk 2: Chair Alim Rustem Aslan
 - New Space Approach from idea to orbit, Sami Aslanhan and Tugay Güzel, Plan S Satellite Technologies, Türkiye
- **11:00 - 11:25, Coffee break -Exhibition Area**
- 11:25 - 12:40, Presentations SESSION 1: Chair: Shinichi Nakasuka
 - Alim Rustem Aslan, “PAUSAT-1, Academia-Industry-Government Collaboration for Space Capacity Building”, Ali Javed Hashmi, Alim Rüstem Aslan, Boğaç Karabulut, Asfand Yar Awan, Onur Oztekin, Egemen Catal, Kaan Sarıca, Aybuke Agirbas, et.al, AU-Pakistan and İTÜ-Türkiye.
 - Samer Lahouar, “Space Technologies Training and Capacity Building in Tunisia Through the FACT Project”, Samer Lahouar, Mounir Mansour, Mongia Mhiri, Nissen Lazreg, Nozha Zalfani, Thameur Chebbi, Thouraya Sahli Chahed, Kamel Besbes, Tunisia
 - Erdem Onur Ozyurt, “A Morphological Approach of False Star Removal and Camera Motion Estimation for Star Sensors”, Erdem Onur Ozyurt, Alim Rüstem Aslan İTÜ, Türkiye
 - Nazgul Kaliyeva “Some Algorithms for Controlling the Motion of Satellites in a Formation, Zaur Rakisheva, Anna Sukhenko, Nazgul Kaliyeva, Nursultan Doszhan, Gulama-Garip Alisher Ibrayev, Kazakhstan
- **12:40 - 14:00, Lunch break Coffee break -Exhibition Area**



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- 14:00 - 15:30, Presentations SESSION 2, chair: Mansur Çelebi

- Zoom Link

<https://itu-edu-tr.zoom.us/j/95216103194?pwd=dnVic1RrcFRORzZDQzZMbdDFBY2RiQT09>

ID: 952 1610 3194

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- Hari Ram SHRESTHA, “BIRDS 4 1U CubeSat Missions and On Orbit Results”, Hari Ram Shrestha, George Maeda, Sangkyun Kim, Hirokazu Masui, Takashi Yamauchi, Mengü Cho, KIT, Japan
- Yenglik Mellatova, “Prospects for the Application of Big Data Analysis Technologies in the Task of Searching for Harbingers of Seismic Activity by Processing the Results of Measurements Carried Out Using Space Infrastructure”, Kuanysh Alipbayev, Timur Suleyev and Zhanna Suimenbayeva, Yenglik Mellatova, Kazakhstan
- Atakan SÜSLÜ, “Design of A Visual Pose Estimation Algorithm for Moon Landing”, Atakan SÜSLÜ, Betül Rana KURAN, Halil Ersin SÖKEN, METU, Türkiye
- Irfan Rashed, “Role of AI in Nano satellite Constellations for Autonomy”, Mohammed Irfan Rashed, HyoChoong Bang, South Korea
- Koray Bayraktar, “A Nano-Satellite Launch Arrangement and Interface Control, Koray Bayraktar, E. Nur Sayar Çınar, M. Cem Bahşi, M. Mehmet Nefes, TÜRKSAT, Türkiye

- **15:30 - 16:00, Coffee break -Exhibition Area**

- 16:00 - 17:30, Presentations SESSION 3 Chair: Fuse Tetsuhito

- ZOOM LINK

- <https://itu-edu-tr.zoom.us/j/98908188639?pwd=MjBESU5HTE9yS2IxNTIBRkpaYVd0Zz09>

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- Mengü Cho, “Revision Strategy of Lean Satellite Testing Standard ISO 19683”, KIT, Japan
- Zeger de Groot, “NAPA 2 turn key mission: high resolution images and data from LEO”, ISIS, Netherlands, Hugo Brower, George Dimitriadis, Abe Bonnema
- Doğukan BENLİ and Halil Ersin SÖKEN, “Reducing the Computational Load of Attitude Estimation for Nano-Satellites using Integrated Measurements”
- Bilge MEMİŞ, “n-LOTUSat: The Design of a Student-Driven Lean CubeSat Project”, ilge Memiş, Osman Berkan Akdere, Bengisu Kaplan, Fatma Balık, Mehmet Gümüşbaş, İTÜ, Türkiye
- Said Semih KARADOGAN, “Bit-Error Rate Comparison Between M-Qam And M-Psk In Case Of Turbo Coding, Said Semih Karadogan, Nevsan Sengil, THKU, Türkiye

- 19:00 - 22:30, Reception: Bosphorus Tour (Bus departs from meeting place at about 18:00)

DAY 2: 18th October 2022 - Tuesday

- 08:30 - 17:00, Registration
- 09:00 - 09:45, Keynote Talk 3, Chair: Shinichi Nakasuka
 - Space Engineering Capacity Building Example of South Africa over 3 Decades, W. H. Steyn, Stellenbosch University, Republic of South Africa
- 09:45 - 10:30, Keynote Talk 4, Chair: Shinichi Nakasuka
 - Legal Aspects of Small Satellites and Large Constellations, Tanja Masson-Zwaan, Leiden University, Netherlands
 - Zoom Link

<https://itu-edu-tr.zoom.us/j/94268294474?pwd=YmtuN1BNMDUyMkViNUZSbkJlUd1jvZz09>

Toplantı Kimliği: 942 6829 4474
Parola: 278742

- **10:30 - 11:00, Coffee break -Exhibition Area**
- 11:00 - 12:30, Presentations SESSION 4, Chair, W.H. Steyn

Zoom Link

<https://itu-edu-tr.zoom.us/j/93269595861?pwd=QWFNbkNxaGJHREtFSFdDZTNzd0orUT09>

ID: 932 6959 5861
Passwd: 604771

- Nazlı Can, Legal Aspects of Remote Sensing, İTÜ and İstanbul Law Office, İstanbul
 - Angel Bernal MENENDEZ CIFUENTES, “LESSON LEARNED ON IN-ORBIT OPERATION OF THE IRIS-A ATTITUDE DETERMINATION AND CONTROL SUBSYSTEM”, Angel Bernal MENENDEZ CIFUENTES, Jyh-Ching JUANG, Jiun-Jih MIAU, Yun-Peng TSAI, Yun-Rong YANG, Taiwan
 - Eyoas Ergetu AREDA, “Development of efficient Mono-frame CubeSat platform for fast and demanding missions, Eyoas Ergetu AREDA, Hirokazu MASUI, Mengü CHO
 - Timothy Kudzanayi Kuhamba, Performance Characterization of 1U CubeSat Passive Attitude Control System through on-Ground Tests, Timothy Kudzanayi Kuhamba, Fukudome Shoma, Cho Mengü
- **12:30 - 14:00, Lunch break Coffee break -Exhibition Area**
 - 14:00 - 15:30, Presentations SESSION 5, Chair Mengü Cho
 - Zoom Link

<https://itu-edu-tr.zoom.us/j/97399244744?pwd=YnRWwW5bXhTSirWGR4TkhHeXBCQT09>

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- Hasan Kinatas, “Nontraditional Gyro-Based EKF for Small Satellite Attitude Estimation and Sensor Bias Calibration”, Hasan Kinatas and Chingiz Hajiyev, İTÜ, Türkiye
 - T. Bopeyev, “Onboard Control Complex of Kazakhstani Scientific Nanosatellite KazSciSat”, M. Moldabekov, S. Yelubayev, T. Bopeyev, A. Sukhenko., Kazakhstan
 - T. Bopeyev, “On the Creation of a Space System for Scientific Purposes KazSciSat”, M. Moldabekov, S. Yelubayev, T. Bopeyev, A. Sukhenko, Kazakhstan
 - T. Bopeyev, “Communication System of Kazakhstani Scientific Nanosatellite KazSciSat”, M. Moldabekov, S. Yelubayev, T. Bopeyev, A. Sukhenko, Kazakhstan
 - Timothy Kudzanayi Kuhamba, “SATELLITE DEVELOPMENT IN AFRICA: A SURVEY, Timothy Kudzanayi Kuhamba, Julia Selman Ayetey, Meshack Ndiritu
- **15:30 - 16:00, Coffee break -Exhibition Area**
 - 16:00 - 17:30, Presentations SESSION 6, Chair: Kamel Besbes

Zoom Link

<https://itu-edu-tr.zoom.us/j/94671457221?pwd=UkhTR3RmZ2htOG1lKzI1dTRpVOISUT09>

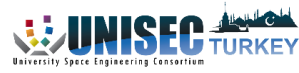
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- Space BD Presentation, Japan
- M. Ilarslan, Tesat Laser Terminal for CubeSats, Airbus
- Giovanna Ramirez, “Satellite Surveyance to Diagnose Nutrition and Diseases for Coffee Crops in Colombian Fields”, Giovanna Ramírez, Juan Bernardo Ceballos, Juan Fernando Casanova, Colombia
- Didem Ceren Mandı, “Design of Low-Thrust Control in Station Keeping Maneuver for Small Geostationary Satellites”, Didem Ceren Mandı, and Metin Uymaz Salamcı, Finland-Türkiye

Poster presentations

- “On-Ground Test Techniques for Functional Verification of PİRİSAT 6U Cubesat”, İnci Munyas Elmas, Cenk Tasdemir, M. Fatih Celik, Mustafa Tekin, STM Savunma Teknolojileri ve Muhendislik A.Ş., Türkiye
- “STM’s Mission Planning Software”, Erhan Topal, Duran Sayalı, Berat Şevval Yeniçerioglu, Selçuk Çelik, STM Savunma Teknolojileri ve Muhendislik A.Ş., Türkiye



DAY 3: 19th October 2022 - Wednesday

- 08:30 - 11:00, Registration
- 09:00 - 09:45, Keynote Talk 5, Chair: Alim Rüstem Aslan
 - Pocket cubes and smaller space systems, M.Ş. Uludağ, Delft University, Netherlands
- **09:45 - 10:10, Coffee break -Exhibition Area**
- 10:10 - 11:55, Presentations SESSION 7, Chair: M.Ş. Uludağ

Zoom Link

<https://itu-edu-tr.zoom.us/j/93732429089?pwd=Z3NUVmxoNVpBY2pjWWd1TWNyVnRGZz09>

- ID: 937 3242 9089
Passwd: 731289
 - Emrah Kalemci, “The iXRD on 3U CubeSAT Sharjah-Sat-1; Observing black holes and the Sun in hard X-rays”, E Kalemci, I. Fernini, A.R. Aslan, Bogac Karabulut, et.al., UAE, Türkiye
 - Demet Çilden Güler, “Impact of Earth's reflected radiation on attitude motion of a nanosatellite”, İTÜ, Türkiye
 - Nataly Andrea Rojas Barnett, “Computational tools for modeling the Chasqui A and Chasqui B nanosatellite missions in space weather study”, Nataly Andrea Rojas Barnett, Salvador Eduardo Romero de la Roca, Sergio Alberto Sosa Callupe, Sebastian Roberto Manuel Silva Hurtado, Sebastian Alonso Yen Vela, Jesús Armando Marín Rojas, David Rodrigo de la Torre, Carlos Javier Solano Salinas, Peru
 - Osman Aslan, “Optimized Circular Polarized Antenna with Small Aperture for Satellite Communications”, Osman Aslan, Murat Sencer Akyüz, Alparslan Çağrı Yapıcı, Plan S, Türkiye
 - Kikuko Miyata, “Strategic Framework Design for University-based Satellites Mission Assurance”, Kikuko Miyata, Mengu Cho, Masahiro Furumoto, Yoshihiro Tsuruda, Yukihito Kitazawa, Toshinori Kuwahara, Japan
 - Bonny Omara, “UTILIZING UGANDA'S FIRST SATELLITE TO FULFILL ITS DEMANDS”, Bonny Omara, George Maeda, Maxwell Onapa Otim, Cosmas Mwikirize, Obalo Ken, Sankyun Kim, Teramoto Mariko, Hirokazu Masui, Takashi Yamauchi, Mengu CHO
 - A. Syzdykov, A. Sakhan, Algorithm for Finding MPPT When Shading or Failure of Solar Panel Photoelectric Converters on Space Vehicles Using Low Orbits, Kazakhstan
- 11:55 - 12:15, Closing of 11th NSAT
- **12:00 - 13:30, Lunch break at Coffee break -Exhibition Area**



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