



METEO IRS 2024

11-13 June
2024

INTERNATIONAL SYMPOSIUM ON REMOTE SENSING IN METEOROLOGY

Istanbul Technical University

Faculty of Aeronautics and Astronautics

TAV Conference Hall

<https://meteoirs.itu.edu.tr/2024/>

SYMPOSIUM PROGRAM

11 JUNE 2024, TUESDAY	
UTC+3	OPENING SESSION https://zoom.us/j/6264021066?pwd=SzXfboaws3arVTGTNOYtDahh3NX6VP.1&omn=94389139981
10:30 - 11:00	AHMET ÖZTOPAL, İTÜ, Chair of METEO IRS 2024 EMEL ÜNAL, TMMOB Chamber of Meteorological Engineers MERAL DEMİRTAŞ, Samsun University, Head of Meteorological Engineering Department MİKDAT KADIOĞLU, İTÜ, Head of Meteorological Engineering Department
UTC+3	SESSION 1 CHAIR: ZEREŞAN KAYMAZ, Ph.D. https://zoom.us/j/6264021066?pwd=SzXfboaws3arVTGTNOYtDahh3NX6VP.1&omn=94389139981
11:00 - 12:00 Online	SUPPORTING WEATHER AND CLIMATE MONITORING FROM SPACE: AN UPDATE FROM EUMETSAT JOACHİM SAALMÜLLER, Invited Speaker EUMETSAT, GERMANY
12:00 - 13:00 Online	SATELLITE MEASUREMENTS IN SUPPORT TO THE NOWCASTING OF SEVERE WEATHER AND HAILSTORMS SANTE LAVIOLA, Ph.D., Invited Speaker National Research Council of Italy, Bologna, ITALY
13:00 - 14:00	LUNCH

SESSION 2	
UTC+3	CHAIR: SEVİNÇ ASİLHAN, Ph.D.
	https://zoom.us/j/6264021066?pwd=SzXfboaws3arVTGTNOYtDahh3NX6VP.1&omn=94389139981
14:00 - 14:20 Online	NOWCASTING: USING REMOTE SENSING SATELLITE IMAGES TO FORECAST HEAVY RAIN AND DUST STORMS IN CAMEROON
	RAMSES LANDRY BELL EPIPE National Meteorology Service, CAMEROON
14:20 - 14:40 Online	UNDERSTANDING TRENDS AND INFLUENCING FACTORS IN ARABIAN SEA TROPICAL CYCLONE ACTIVITY (1982-2022)
	IBRAHIM AL ABDULSALAM Directorate General of Meteorology, SULTANATE OF OMAN
14:40 - 15:00 Online	ANALYZING THE IMPACT OF SOIL MOISTURE ON DUST EVENTS IN EASTERN IRAN: A REMOTE SENSING STUDY UTILIZING AMSR-E AND FY3B-MWRI DATA
	ABOUZAR MEHRABAN, YANSONG BAO, VAHID IKANI, MAJID HABIBI NOKANDAN Nanjing University, CHINA
15:00 - 15:20 Online	DETECTION OF INTERNAL WAVES ON SATELLITE IMAGERY USING THE GABOR TRANSFORM
	NATALIA FEDOSEEVA, EDUARD PODGAISKIJ, TATIANA SIMAKINA Russian State Hydrometeorological University, RUSSIA
15:20 - 15:40 Online	GIS BASED DISTRIBUTED MODELING OF SUNSHINE DURATION OVER THE COMPLEX TERRAINS OF PAKISTAN
	ZUBAIR AHMED SIDDIQUI Pakistan Meteorological Service, PAKISTAN
15:40 - 16:00	COFFEE BREAK
SESSION 3	
UTC+3	CHAIR: KURTULUŞ ÖZTÜRK, Ph.D.
	https://zoom.us/j/6264021066?pwd=SzXfboaws3arVTGTNOYtDahh3NX6VP.1&omn=94389139981
16:00 - 17:00 Online	WINTER PRECIPITATION MEASUREMENTS IN SOUTHERN NEW ENGLAND
	ALİ TOKAY, Ph.D., Invited Speaker University of Maryland, NASA, USA
17:00 - 17:20 Online	UZAKTAN ALGILAMA VE CBS KULLANILARAK İKLİM DEĞİŞİKLİĞİ ALGORİTMASINA GÖRE TAŞKIN OLUŞUMUNUN MODELLENMESİ (ÖRNEK OLAY: İRAN, GORGAN ROOD HAVZASI)
	ABDOLHAFEZ PENAHI, AMANMOHAMMAD KAMALI, MOHAMMAD KORDJAZI, ABDOLJABAR CHOGAN Golestan Meteorological Department, IRAN

12 JUNE 2024, WEDNESDAY	
UTC+3	SESSION 4 CHAIR: AYNUR ŞENSOY, Ph.D.
	https://zoom.us/j/6264021066?pwd=SzXfboaws3arVTGTNOYtDahh3NX6VP.1&omn=97295417746
09:30 - 09:50 In person	IMPROVING ACCURACY OF SATELLITE LASER ALTIMETER BASED OPEN WATER SURFACE ELEVATIONS USING LOCAL GEOID AHMET EMRE TEKELİ, FATİH SAKA, SENAYİ DÖNMEZ <i>Iğdır University, Karabük University, TÜRKİYE</i>
09:50 - 10:10 Online	ACTUAL EVAPOTRANSPIRATION ESTIMATION USING SEBAL THROUGH GOOGLE EARTH ENGINE CLOUD INTEGRATED WITH LANDSAT SATELLITE IMAGES AND ERA5 LAND DATA OMAR ALSENJAR, MAHMUT ÇETİN, HAKAN AKSU <i>Çukurova University, Samsun University, TÜRKİYE</i>
10:10 - 10:30 Online	PERFORMANCE ASSESSMENT OF CMORPH PRECIPITATION ESTIMATES FOR HYDROLOGICAL APPLICATIONS IN THE CEYHAN BASIN ARİF ÖZ, MUHAMMET ÖMER DIŞ, HAKAN AKSU <i>Kahramanmaraş Sütçü İmam University, Samsun University, TÜRKİYE</i>
10:30 - 10:50 In person	KASTAMONU-BOZKURT TAŞKININ HİDROLOJİK – HİDRODİNAMİK MODELLENMESİ VE SENTİNEL-1 UYDU GÖRÜNTÜLERİ İLE KALİBRASYONU İHSANCAN DURAN, GÖKÇEN UYSAL, SİBEL YILMAZ <i>Eskişehir Technical University, TÜRKİYE</i>
10:50 - 11:10 In person	ÇOKLU HİDROLOJİK MODELLEME İLE UYDU TOPRAK ÜRÜNLERİNİN DOĞRULANMASI MEVLÜTHAN SAKALLI, ALİ ARDA ŞORMAN, AYNUR ŞENSOY <i>Eskişehir Technical University, TÜRKİYE</i>
11:10 - 11:30	
COFFEE BREAK	

SESSION 5	
UTC+3	CHAIR: ZUHAL AKYÜREK, Ph.D.
	https://zoom.us/j/6264021066?pwd=SzXfboaws3arVTGTNOYtDahh3NX6VP.1&omn=97295417746
11:30 - 11:50 In person	MONITORING LAKE VAN USING ICESat-2 OĞUZHAN ESATOĞLU, AHMET EMRE TEKELİ, SENAYİ DÖNMEZ <i>Iğdır University, TÜRKİYE</i>
11:50 - 12:10 In person	ASSESSING EASTERN ANATOLIA'S SNOW COVER DYNAMICS WITH INTERACTIVE MULTISENSOR MAPPING FEVZİ DAŞ, EMİRHAN ÖZDEMİR, RÜŞTÜ ÇALLI, MİTAT CAN YILDIZ, ALİHSAN ŞEKERTEKİN, SELÇUK EKİCİ, AHMET EMRE TEKELİ, SENAYİ DÖNMEZ, SABİT ERŞAHİN <i>Iğdır University, TÜRKİYE</i>
12:10 - 12:30 Online	ADVANCES IN SNOW COVER EXTENT MONITORING FROM SPACE: EUMETSAT H SAF H43 SNOW PRODUCT ÇAĞRI KARAMAN, SEMİH KUTER, MUSTAFA BERKAY AKPINAR, ZUHAL AKYÜREK <i>HIDROSAF, Karatekin University, Middle East Technical University, TÜRKİYE</i>
12:30 - 12:50 Online	ANALYSIS OF TEMPORAL CHANGES IN SNOW-COVERED AREAS IN THE EUPHRATES-TIGRIS BASIN USING SATELLITE IMAGES SEFA DERE, HAKAN AKSU <i>Turkish State Meteorological Service, Samsun University, TÜRKİYE</i>
12:50 - 13:10 In person	INVESTIGATION OF O3 POLLUTION AND ITS IMPACTS ON AGRICULTURAL PRODUCTS IN THE AEGEAN REGION SEDEF BAYRAM, SEDA TOKGÖZ, MERVE DÖNDÜ AYDIN, BURÇAK KAYNAK <i>Istanbul Technical University, TÜRKİYE</i>
13:10 - 14:00	
LUNCH	

SESSION 6	
CHAIR: HÜSEYİN TOROS, Ph.D.	
https://zoom.us/j/6264021066?pwd=SzXfboaws3arVTGTNOYtDahh3NX6VP.1&omn=97295417746	
14:00 - 14:20 In person	SPATIO-TEMPORAL ANALYSIS OF ATMOSPHERIC POLLUTANT TRENDS CAUSED BY INDUSTRIAL ZONE FIRES IN KOCAELİ USING REMOTE SENSING METHODS <u>FURKAN ALİ KÜÇÜK</u> , CEYHAN KAHYA TÜBİTAK-MAM, İstanbul Technical University, TÜRKİYE
14:20 - 14:40 In person	SPATIO-TEMPORAL ANALYSIS OF AIR POLLUTANT AND GREENHOUSE GASES WITH METEOROLOGICAL PARAMETERS AROUND MANISA <u>MERVE DÖNDÜ AYDIN</u> , SEDEF BAYRAM, SEDA TOKGÖZ, BURÇAK KAYNAK İstanbul Technical University, TÜRKİYE
14:40 - 15:00 UTC+3 In person	EVALUATION OF HIGH IASI NH3 LEVELS IN IĞDIR PROVINCE WITH THE MEASUREMENTS OF OTHER AIR POLLUTANTS AND METEOROLOGICAL PARAMETERS <u>SEDA TOKGÖZ</u> , SERRA SARAÇOĞLU, MERVE DÖNDÜ AYDIN, SEDEF BAYRAM, BURÇAK KAYNAK İstanbul Technical University, TÜRKİYE
15:00 - 15:20 Online	EVALUATION OF AIR QUALITY AND ITS RELATIONSHIP WITH ATMOSPHERIC AEROSOL IN THE ERZURUM PROVINCE <u>KAZIM KABA</u> , FUNDA YÜZLÜKOĞLU, CAHİT YEŞİLYAPRAK Atatürk University, Celal Bayar University, TÜRKİYE
15:20 - 15:40 Online	AEROSOL TYPES ANALYSIS FOR THE SITES OF TÜRKİYE NATIONAL OBSERVATORIES <u>FUNDA YÜZLÜKOĞLU</u> , KAZIM KABA, CAHİT YEŞİLYAPRAK Celal Bayar University, Atatürk University, TÜRKİYE
COFFEE BREAK	

SESSION 7	
CHAIR: BİHTER DURNA, Ph.D.	
https://zoom.us/j/6264021066?pwd=SzXfboaws3arVTGTNOYtDahh3NX6VP.1&omn=97295417746	
16:00 - 16:20 Online	INVESTIGATION OF THE USE OF REMOTE SENSING TECHNOLOGIES IN COMBATING CLIMATE CHANGE <u>HANDE EMANET BEBA</u> , ZÜBEYDE ÖZTÜRK İstanbul Technical University, TÜRKİYE
16:20 - 16:40 Online	EVALUATION OF LONG-TERM TEMPERATURE, PRECIPITATION AND HUMIDITY DATA OF ISTANBUL PROVINCE <u>FUNDA DÖKMEN</u> , CANSU ASLAN, AYŞE NUR UZUNLAR Kocaeli University, TÜRKİYE
16:40 - 17:00 In person	TREND ANALYSIS OF EXTREME TEMPERATURES MEASURED AT 3 MAIN PRESSURE LEVELS OF THE TROPOSPHERE ACROSS EURASIA <u>BORAN YILDIZ</u> , AHMET ÖZTOPAL İstanbul Technical University, TÜRKİYE
17:00 - 17:20 In person	TREND ANALYSIS OF TÜRKİYE CLOUD COVERAGE UNDER CLIMATE CHANGE <u>SENA ÇAĞLA APAYDIN</u> , AHMET ÖZTOPAL İstanbul Technical University, TÜRKİYE
17:20 - 17:40 In person	INVESTIGATION OF HIGH IASI AMMONIA LEVELS IN THE EASTERN MEDITERRANEAN REGION AND THEIR RELATIONSHIP WITH METEOROLOGY AND POSSIBLE SOURCES <u>SERRA SARAÇOĞLU</u> , SEDA TOKGÖZ, MERVE DÖNDÜ AYDIN, SEDEF BAYRAM, BURÇAK KAYNAK İstanbul Technical University, TÜRKİYE

13 JUNE 2024, THURSDAY	
UTC+3	SESSION 8 CHAIR: BAHTİYAR EFE, Ph.D.
	https://zoom.us/j/6264021066?pwd=SzXfboaws3arVTGTNOYtDahh3NX6VP.1&omn=98422440759
09:30 - 09:50 In person	USING ARTIFICIAL INTELLIGENCE IN ANALYSIS OF REMOTE SENSING PRODUCTS: CHATGPT EXAMPLE
	<u>SALİH BABAGIRAY</u> , MEHMET SOYLU General Directorate of Water Management, TÜRKİYE
09:50 - 10:10 In person	VERY SHORT TERM PREDICTION OF SATELLITE RAIN RATE PATTERN USING ARTIFICIAL INTELLIGENCE
	<u>ÇAĞDAŞ TARI</u> , MUSA HALİT KAYA, AHMET ÖZTOPAL İstanbul Technical University, TÜRKİYE
10:10 - 10:30 Online	MONTHLY RAINFALL PREDICTION USING XGBOOST ALGORITHM AND REMOTE SENSING DATA
	<u>SEBAHAT TEMUÇİN KILIÇER</u> , SEDAT DOĞAN, HALİL AKINCI Artvin University, Ondokuz Mayıs University, TÜRKİYE
10:30 - 10:50 Online	COMPARATIVE INVESTIGATION OF RAIN CELL TRACKING TOOLS: TITAN vs ANVIL
	<u>KURTULUŞ ÖZTÜRK</u> , ALPER ÇUBUK, ESİN OĞUZ Turkish State Meteorological Service, TÜRKİYE
10:50 - 11:10 In person	INVESTIGATION OF HAIL DETECTION WITH PASSIVE MICROWAVE DATA
	<u>ABDURRAHMAN DURMAZ</u> , AHMET ÖZTOPAL İstanbul Technical University, TÜRKİYE
11:10 - 11:30	COFFEE BREAK

SESSION 9	
UTC+3	CHAIR: CEYHAN KAHYA, Ph.D.
	https://zoom.us/j/6264021066?pwd=SzXfboaws3arVTGTNOYtDahh3NX6VP.1&omn=98422440759
11:30 - 11:50 In person	SOLUTION OF THE DISTANCE DETECTION PROBLEM IN WEATHER RADARS USED IN AIRCRAFTS WITH TRIZ METHODOLOGY
	<u>YUNUS EMRE KARA</u> , METİN ORHAN KAYA İstanbul Technical University, TÜRKİYE
11:50 - 12:10 In person	MAPPING THE LAND SURFACE TOPOGRAPHY WITH ICESat-2
	<u>EMİRHAN ÖZDEMİR</u> , RÜŞTÜ ÇALLI, AHMET EMRE TEKELİ, ALİHSAN ŞEKERTEKİN İğdır University, TÜRKİYE
12:10 - 12:30 Online	SOLAR STORMS AND FORECASTING METHODS
	<u>MELAHAT BİLGE DEMİRKÖZ</u> , GÜLCE KARAGÖZ Middle East Technical University, TÜRKİYE
12:30 - 12:50 Online	AN INVESTIGATION ON THE RELATIONSHIP BETWEEN SOLAR IRRADIANCE AND CLOUD CEILING
	<u>İMDAT ZAFER PEKTEMİR</u> , SEVİNÇ ASILHAN SIRDAŞ İstanbul Technical University, TÜRKİYE
12:50 - 13:10 Online	ASSESSING EARTHQUAKE ANOMALIES USING REMOTE SENSING DATA
	<u>ÜMRAN ÖZTÜRK</u> , FİLİZ BEKTAŞ BALÇIK İstanbul Technical University, TÜRKİYE
13:10 - 13:30 Online	UZAKTAN ALGILAMA YÖNTEMLERİ İLE SU POTANSİYELİNİN BELİRLENMESİ: MANAVGAT BARAJI ÖRNEĞİ
	<u>YİĞİTALP KARA</u> , BUSE SELEN YÜRÜR, MEHMET SEREN KORKMAZ Samsun University, TÜRKİYE

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