



4th INTERNATIONAL INFORMATICS and SOFTWARE ENGINEERING CONFERENCE

December 21-22, 2023 Ankara / TÜRKİYE

Disaster Recovery and Resilience Management Using Information Technology

<https://iisec.tbdakademi.org.tr/2023/>

IISEC 2023 SYMPOSIUM PROGRAM

DECEMBER 21, 2023 (THURSDAY)

VENUE: BİLGİ TEKNOLOJİLERİ VE İLETİŞİM KURUMU (BTK) – ANKARA



13:00 - 14:00	REGISTRATION	
14:00 - 14:30	OPENING CEREMONY (MAIN FLOOR CONFERENCE HALL) PROF. DR. ALI YAZICI ATILIM UNIVERSITY, TR PROF. DR. ASAF VAROL GENERAL CHAIR OF IISEC, THE UNIVERSITY OF TENNESSEE AT CHATTANOOGA, TN, US PROF. DR. AHAD NASAB DEAN OF COLLEGE OF ENGINEERING AND COMPUTER SCIENCE, UTC, US	
14:30 - 15:30	KEYNOTE SPEECH (MAIN FLOOR CONFERENCE HALL) PROF. DR. ŞEREF SAĞIROĞLU BIG DATA ANALYTICS, SECURITY AND PRIVACY ISSUES IN SMART ENERGY SYSTEMS	
15:30 - 16:00	COFFEE BREAK	
16:00 - 17:00	KEYNOTE SPEECH (MAIN FLOOR CONFERENCE HALL) PROF. DR. MURAT KARAKAYA REVOLUTIONIZING HUMAN-COMPUTER INTERACTION FOR SOFTWARE DEVELOPMENT: THE POWER OF LARGE LANGUAGE MODELS	
16:00 - 17:00	KEYNOTE SPEECH (MAIN FLOOR CONFERENCE HALL)	SESSION 1 (İLHAN VARANK CONFERENCE HALL- FLOOR 1) ONLINE PRESENTATIONS
SESSION CHAIR		
PAPER IDS		109, 96, 97, 103

DECEMBER 22, 2023 (FRIDAY)

09:30-10:00	REGISTRATION		
10:00- 11:30	SESSION 2 (MAIN FLOOR CONFERENCE HALL) IN-PERSON PRESENTATIONS	SESSION 3 (İLHAN VARANK CONFERENCE HALL- FLOOR 1) ONLINE PRESENTATIONS	SESSION 4 (YAVUZ CONFERENCE HALL- FLOOR 1) ONLINE PRESENTATIONS
SESSION CHAIR			
PAPER IDS	14, 20, 55, 56, 54	2, 3, 4, 9, 13, 12	11, 62, 80, 88, 36
12:15 – 13:30	LUNCH		
13:30 – 15:00	SESSION 5 (MAIN FLOOR CONFERENCE HALL) IN-PERSON PRESENTATIONS	SESSION 6 (İLHAN VARANK CONFERENCE HALL- FLOOR 1) ONLINE PRESENTATIONS	SESSION 7 (YAVUZ CONFERENCE HALL- FLOOR 1) ONLINE PRESENTATIONS
SESSION CHAIR			
PAPER IDS	21, 70, 76, 90, 86	32, 77, 37, 50, 19, 74	40, 69, 98, 99, 78
15:00-15:15	BREAK		
15:15 – 16:45	SESSION 8 (MAIN FLOOR CONFERENCE HALL) IN-PERSON PRESENTATIONS	SESSION 9 (İLHAN VARANK CONFERENCE HALL- FLOOR 1) ONLINE PRESENTATIONS	SESSION 10 (YAVUZ CONFERENCE HALL- FLOOR 1) ONLINE PRESENTATIONS
SESSION CHAIR			
PAPER IDS	83, 84, 1, 107	22, 101, 102, 104, 75, 10	51, 65, 108, 87, 72
16:45 - 18:00	CLOSING CEREMONY (MAIN CONFERENCE HALL)		

18:00-19:00	SESSION 11 ((MAIN FLOOR CONFERENCE HALL)) VIDEO RECORDING PRESENTATIONS 41, 42, 47, 60, 64, 89
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14:00-14:30 OPENING CEREMONY (MAIN FLOOR CONFERENCE HALL)

PROF. DR. ALI YAZICI, ATILIM UNIVERSITY, TR

PROF. DR. ASAF VAROL, GENERAL CHAIR OF IISEC, THE UNIVERSITY OF TENNESSEE AT CHATTANOOGA, US

PROF. DR. AHAD NASAB DEAN OF COLLEGE OF ENGINEERING AND COMPUTER SCIENCE, UTC, US

14:30-15:30 KEYNOTE SPEECH (MAIN FLOOR CONFERENCE HALL)

PROF. DR. ŞEREF SAĞIROĞLU

BIG DATA ANALYTICS, SECURITY AND PRIVACY ISSUES IN SMART ENERGY SYSTEMS

15:30-16:00 COFFEE BREAK

16:00-17:00 KEYNOTE SPEECH (MAIN FLOOR CONFERENCE HALL)

PROF. DR. MURAT KARAKAYA

REVOLUTIONIZING HUMAN-COMPUTER INTERACTION FOR SOFTWARE DEVELOPMENT: THE POWER OF LARGE LANGUAGE MODELS

16:00-17:00 SESSION 1 (İLHAN VARANK CONFERENCE HALL- FLOOR1)

ZOOM ID: / PASSWORD:

CHAIR:

109, 96, 97, 103

PAPER ID 109: IMAGE DENOISING WITH CNN-BASED ATTENTION
NEVAL KARACA* AND SERDAR CIFTCI

PAPER ID 96: FINDING OPTIMAL MONTE-CARLO RUN NUMBERS FOR STOCHASTIC DATA UNDER GAUSSIAN DISTRIBUTION
EKIN CAN ERKUS*, ALPER YILDIZ AND SEVİM AÇIKSÖZ

PAPER ID 97: A COMPARISON OF OPTIMIZATION METHODS FOR PATH FINDING PROBLEM
EKIN CAN ERKUS*, NAZİM ÖNDER ORHAN AND AHMET BURSALI

PAPER ID 103: AI-POWERED SOFTWARE TESTING: THE IMPACT OF LARGE LANGUAGE MODELS ON TESTING METHODOLOGIES
VAHİT Y BAYRI, ECE DEMİREL*

DECEMBER 22, 2023 (FRIDAY)

10:00-11:30 SESSION 2 (MAIN FLOOR CONFERENCE HALL)

CHAIR:

14, 20, 55, 56, 54

PAPER ID 14: HELPCHAIN: A BLOCKCHAIN BASED DISASTER MANAGEMENT SYSTEM
BERKE PARILDAR, DORUK SAYIN, FURKAN ZEKİ TÜRKZEYBEK*, ONUR KÜÇÜKÖZ AND YUSUF MURAT ERTEN

PAPER ID 20: RECOMMENDER SYSTEMS FOR NFT PURCHASING
DURMUŞ AYDOĞDU* AND NİZAMETTİN AYDIN

PAPER ID 55: ENHANCING TEXT SUMMARIZATION: EVALUATING TRANSFORMER-BASED MODELS AND THE ROLE OF LARGE LANGUAGE MODELS LIKE CHATGPT
PINAR SAVCI AND BIHTER DAŞ

PAPER ID 56: ANALYZING HUMAN AND CHATGPT RESPONSES: A COMPARATIVE STUDY OF TRANSFORMER MODELS IN NATURAL LANGUAGE PROCESSING
TUNAHAN GÖKÇİMEN AND BIHTER DAŞ

PAPER ID 54: INVESTIGATION OF DQN ALGORITHM FOR DRIVING CONTROL FOR SMART CITIES AND TRAFFIC SAFETY
YILDIRAY YİĞİT*, MURAT KARABATAK, ASAF VAROL AND AHAD NASAB

10:00-11:30 SESSION 3 (İLHAN VARANK CONFERENCE HALL- FLOOR1)

ZOOM ID: / PASSWORD:

CHAIR:

2, 3, 4, 9, 13, 12

PAPER ID 2: ENHANCING MANUFACTURING EFFICIENCY WITH COMPUTER VISION AND DOOSAN ROBOTICS: AN OVERVIEW OF REAL-TIME OBJECT DETECTION AND AUTOMATED DECISION-MAKING
AMENİ CHAABANI, RAEF CHERIF* AND YACINE YADDADEN

PAPER ID 3: AUTONOMOUS MULTI-UAV SYSTEM FOR EFFICIENT SCANNING OF LARGE CONCRETE STRUCTURES

MOHAMED RAZI GHEDAMSI, RAEF CHERIF* AND YACINE YADDADEN

PAPER ID 4: IMPROVING MEASUREMENT ACCURACY OF ACOUSTIC INTENSITY IN VIBRATING MACHINES USING A DOOSAN ROBOT
OUSSEMA TRIKI, RAEF CHERIF* AND YACINE YADDADEN

PAPER ID 9: DESIGN AND FEASIBILITY STUDY OF ASSISTIVE ROBOTIC ARM FOR ORTHOPEDICALLY HANDICAPPED INDIVIDUALS
ALI İHSAN SARI*, BERKAY DERVIŞOĞLU AND ATAĞAN ROVSHENOV

PAPER ID 13: SINHALA SIGN LANGUAGE LEARNING SYSTEM FOR HEARING IMPAIRED COMMUNITY
IDUSHAN K. A. S.*, JAYASUNDERA P. S., JENNY KRISHARA, DILSHAN P. G. T., MADHUSHAN K. L. B. AND
DINUKA WIJENDRA

PAPER ID 12: ASSESSING THE EXPLAINABILITY OF LGBM MODEL FOR EFFORT ESTIMATION ON ISBSG DATASET
MERVE ÖZDEŞ DEMİR*, BAHAR GEZICI AND AYÇA KOLUKISA TARHAN

10:00-11:30 **SESSION 4 (YAVUZ CONFERENCE HALL- FLOOR1)**

ZOOM ID: / **PASSWORD:**

CHAIR:

11, 62, 80, 88, 36

PAPER ID 11: VISUALIZING THE PATH OF A PHOTO TAKER FROM IMAGE METADATA
RASTY SHAKHAWAN MAJID*, CIHAN VAROL, ASAF VAROL AND AHAD NASAB

PAPER ID 62: INVESTIGATING PRE- AND POST-SEISMIC TEC ANOMALIES RELATED TO MODERATE EARTHQUAKES IN TÜRKİYE
AHMAD MUHAMMAD*, FATİH KÜLAHÇI, ASAF VAROL AND SALİM JİBRİN DANBATTİ

PAPER ID 80: OBLIQUE LOGISTIC FUNCTION FOR THE RANK-FREQUENCY DISTRIBUTION OF LETTERS
CAN ÖZBEY

PAPER ID 88: GOMAD: A GOAL ORIENTED APPROACH FOR MODELING AND ANALYZING DATABASE DEPLOYMENT
ABDELKADER OUARED, AHMED ALA EDDINE BENALI AND AHMED SIABDELHADI

PAPER ID 36: PROBABILITY ANALYSIS OF TRACKING SYSTEM OF A MOBILE ROBOT
A. K. İBRAHİM, A. A. LOBATY, MOUSTAFA KURDİ

13:30-15:00 **SESSION 5 (MAIN FLOOR CONFERENCE HALL)**

CHAIR:

21, 70, 76, 90, 86

PAPER ID 21: AI-DRIVEN DROUGHT MANAGEMENT SYSTEM: A TURKISH CASE STUDY
MİLAD SABAMEHR* AND CANSU ÇIĞDEM EKİN

PAPER ID 70: İNDONESİAN STUDENTS' ACCEPTANCE OF GOOGLE CLASSROOM
NURUL RETNO NURWULAN* AND İNTAN FAUZİAH

PAPER ID 76: VERIFICATION OF THE EFFECT OF HOT SPRINGS ON ARTERIOSCLEROSIS BASED ON THE MATHEMATICAL MODEL OF ARTERIOSCLEROSIS ONSET III: IN CASE OF ALKALINE SPRINGS
HIROYUKI KAGAMI, ATSUSHI TERADA AND KATSUSHIGE NAKASHİMA

PAPER ID 90: WHAT MORE CAN LEGO TEACH AGİLE METHODS
NECMETTİN ÖZKAN, SEVAL BAL AND MEHMET ŞAHİN GÖK

PAPER ID 86: DEEP TRANSFER LEARNING TO PREDİCT ALZHEİMER DİSEASE STATUS
AHMED BENYAHİA*, ABDESSELEM BENAMMAR AND İMAD EDDİNE ARAAR

13:30-15:00 **SESSION 6 (İLHAN VARANK CONFERENCE HALL- FLOOR1)**

ZOOM ID: / **PASSWORD:**

CHAIR:

32, 77, 37, 50, 19, 74

PAPER ID 32: THE FFCP MODEL FOR PREDİCTİNG CLICK-THROUGH RATE
ERGÜN BİÇİCİ*

PAPER ID 77: RESİDUAL CONNECTIONS İMPROVE PREDİCTION PERFORMANCE
ERGÜN BİÇİCİ*, ALİ BUĞRA KANBURUĞLU AND RAMAZAN TARIK TÜRKSOY

PAPER ID 37: SMART ORNAMENTAL FİSH CARİNG SYSTEM FOR AQUATIC İNDUSTRY
D.T.W.S. PERERA*, R.H.T. NETHMİNİ, C.K. JAYAWARDAN, M.P. ABEYSEKARA, UDARA SRİMATH S. SAMARATUNGE AND THİLİNİ JAYALATH

PAPER ID 50: VİSİON TRANSFORMER MODEL FOR EFFİCİENT STROKE DETECTİON İN NEUROİMAGING
OGUZHAN KATAR*, ÖZAL YILDIRİM AND YESİM EROĞLU

PAPER ID 19: DEVELOPMENT OF A SMART EDGE DEVICE FOR HOME SECURITY
CHEN SHYAN LEE AND HOU KİT MÜN

PAPER ID 74: CHILD PROTECT: MOBILE APPLICATION HARNESSING THE A* SEARCH ALGORITHM FOR CHILD PROTECT AWARENESS
ROSELIA C. MORCO, ROSMINA JOY M. CABAUATAN, RISTY M. ACERADO, FREDILYN B. CALANDA AND JUSTINE ERIC I. ABAD

13:30-15:00 **SESSION 7 (YAVUZ CONFERENCE HALL- FLOOR1)**

ZOOM ID: / **PASSWORD:**

CHAIR:

40, 69, 98, 99, 78

PAPER ID 40: ANALYZING CUSTOMER CHURN: A COMPARATIVE STUDY OF MACHINE LEARNING MODELS ON PAY-TV SUBSCRIBERS IN TURKEY
TUĞÇE AYDIN HATAŞ*, SIBEL KIRMIZIGÜL ÇALIŞKAN, YASEMIN KURTÇU MEŞE, EMİR OBALI, VEYSEL KARANI YILMAZ, EBRU ÖZ, AYŞENUR YILDIZ, ERKAN KARA AND TUNA ÇAKAR

PAPER ID 69: GRAFRAUD: FRAUD DETECTION USING GRAPH DATABASES AND NEURAL NETWORKS
ALPEREN SAYAR, ŞUAYIP ARSLAN, AJEET SINGH RAINA, SEYIT ERTUĞRUL AND TUNA ÇAKAR*

PAPER ID 98: ANALYTICAL APPROACHES IN CUSTOMER RELATIONSHIP MANAGEMENT
ZEYNEP ŞAHİN, MUSTAFA AŞKIM AKATA, AYŞE KIZILAY, KAAAN ERGİN, BÜŞRA KAYA AND TUNA ÇAKAR*

PAPER ID 99: OPTIMIZING COLLECTIVE BUILDING MANAGEMENT THROUGH A MACHINE LEARNING-BASED DECISION SUPPORT SYSTEM
MERT GÜVENÇLİ, ERKAN DOĞAN, BURCU ÖZYÜRÜYEN, HALİL KIRAN, HASAN DAĞ AND TUNA ÇAKAR*

PAPER ID 78: AN ONLINE SHOPPERS PURCHASING INTENTION MODEL BASED ON ENSEMBLE LEARNING
AYKUT KARAKAYA, İREM KARAKAYA AND TALYA TEMİZCERİ*

15:15-16:45 **SESSION 8 (MAIN FLOOR CONFERENCE HALL)**

CHAIR:

83, 84, 1, 107

PAPER ID 83: ENHANCED THERMAL HUMAN DETECTION WITH FAST FILTERING FOR UAV IMAGES
UMUT OZYURT*, ZAFER DOĞAN BUDAK, BEGUM CICEKDAĞ AND SEYDA ERTEKİN

PAPER ID 84: A SOFTWARE TOOL FOR PLANNING LEO SATELLITE OPERATIONS
MUSTAFA YAVUZ ÖZTÜRK* AND HALİT OĞUZTÜZÜN

PAPER ID 1: RECONFIGURABLE LOW WEIGHT HYBRID PUF DESIGN AGAINST SIDE CHANNEL ATTACKS
BHAGYALAKSHMI NARAYANAPURAM AND JEEBANANDA PANDA

PAPER ID 107: A STUDY ON SLICE-AWARE INDUSTRIAL EDGE APPLICATIONS FOR NEXT-GENERATION PRIVATE NETWORKS
AYKUT ÇUBUKÇU*, ÖZLEM ÇUBUKÇU, YAĞMUR SABUCU SANDAL, ADNAN KAVAK AND KEREM KÜÇÜK

15:15-16:45 **SESSION 9 (İLHAN VARANK CONFERENCE HALL- FLOOR1)**

ZOOM ID: / **PASSWORD:**

CHAIR:

22, 101, 102, 104, 75, 10

PAPER ID 22: GENERATIVE PRE-TRAINED TRANSFORMER (GPT) MODELS FOR IRONY DETECTION AND CLASSIFICATION
MUSTAFA ULVI AYTEKİN* AND O. AYHAN ERDEM

PAPER ID 101: FORECASTING AND ANALYSIS OF ENERGY CONSUMPTION AND WASTE GENERATION IN ANTALYA WITH SVR
ŞUAYB TALHA ÖZÇELİK*, FAİK BORAY TEK AND ERDAL ŞEKERCİ

PAPER ID 102: LEVERAGING TRANSFORMER-BASED LANGUAGE MODELS FOR ENHANCED SERVICE INSIGHT IN TOURISM
ALEYNA ER, ŞUAYB TALHA ÖZÇELİK* AND MELTEM TURHAN YÖNDEM

PAPER ID 104: APPLICATION OF CHATGPT IN THE TOURISM DOMAIN: POTENTIAL STRUCTURES AND CHALLENGES
ORKUN MEHMET KILIÇLIOĞLU, ŞUAYB TALHA ÖZÇELİK* AND MELTEM TURHAN YÖNDEM

PAPER ID 75: REGRESSION ANALYSIS OF AGE OF EMPIRES II DE MATCH RESULTS WITH MACHINE LEARNING
İCLAL CETİN TAS AND AHMET ANIL MÜNGEN*

PAPER ID 10: MAN HOUR PREDICTION FOR COMPLEX INDUSTRIAL PRODUCTS
AHMET EMİN ÜNAL*, HALİT BOYAR, BURCU KULELİ PAK, MEHMET CEM YILDIZ, ALI ERMAN ERTEN AND VEHBI ÇAĞRI GÜNGÖR

15:15-16:45 **SESSION 10 (YAVUZ CONFERENCE HALL- FLOOR1)**

ZOOM ID: / **PASSWORD:**

CHAIR:

51, 65, 108, 87, 72

PAPER ID 51: DEMAND FORECASTING FOR DAILY RETAIL ORDERS IN FRESH FOOD MARKET
UTKU BOZDOĞAN AND GÜLFEM İŞIKLAR ALPTEKİN

PAPER ID 65: DEVELOPMENT OF A GENETIC ALGORITHM FOR VEHICLE ROUTING PROBLEM IN MILITARY LOGISTICS DISTRIBUTION
SÜLEYMAN KESİK*; CEVRIYE ALTINTAŞ

PAPER ID 108: APPLYING SENTIMENT ANALYSIS ON CHILDREN'S STORIES
AZHAR AHMED BILAL*; AYHAN ERDEM; SINAN TOKLU

PAPER ID 87: FAULT DETECTION MODEL USING MEASUREMENT DATA IN FIBER OPTIC INTERNET LINES
ERAY BATTAL, KEREM SAVAS, GÖZDE ÖZKAN AND TUNA ÇAKAR*

PAPER ID 72: A DIGITAL TWIN FRAMEWORK FOR EDGE SERVER PLACEMENT IN MOBILE EDGE COMPUTING
ELIF BOZKAYA

16:45-18:00 **CLOSING CEREMONY (MAIN HALL)**

18:00-19:00 **SESSION 11 (MAIN FLOOR CONFERENCE HALL)**

VIDEO RECORDING PRESENTATIONS

41, 42, 47, 60, 64, 89

PAPER ID 41: DETECTING NOVEL BEHAVIOR AND PROCESS ENHANCEMENT WITH MULTIMODAL PROCESS MINING
ABDURRAHMAN TELLI, TUGBA GURGEN ERDOGAN AND AYÇA KOLUKISA

PAPER ID 42: FACIAL SKINCARE PRODUCT SUGGESTION WITH PRODUCT POPULARITY AND POST RECOMMENDATION CARE
H.M.W.T.C.B. SAMARAKOON, G.A.T.T. WIJESINGHE, G.K.B.V. KARUNATHILAKE, A.U. OVITIGALA, K.M.L.P. WEERASINGHE AND ISHAA WEERASINGHE

PAPER ID 47: RAILTECHX: ADVANCING RAILWAY MODERNIZATION AND EXPANSION SOLUTION
THARUSHA RAJITH SINGH, DULSARA WEERASINGHE, PIYUMIKA ALMEDA, ABDULLAH RIZAN, UTHPALA SAMARAKOON AND NELUM CHATHURANGA AMARASENA

PAPER ID 60: FROM A FILIPINO MORPHOLOGICAL AND TEMPLATE-BASED STEMMING: A TEXT BASED ANALYZER AND DESIGN
GREAT ALLAN M. ONG AND MELVIN A. BALLERA

PAPER ID 64: INNOVATION IN CORPORATE CYBER SECURITY
MUSTAFA ŞENOL

PAPER ID 89: MOBILE APP FOR KIDNEY PATIENTS TO PROVIDE A COMPREHENSIVE SOLUTION TO MANAGE DISEASE
PALINDA M COLOMBAGE*, PABOSHI S DE SILVA, ISHAN T GALLAGE, RUPASINGHE M.R.S.N., LOKESHA WEERASINGHE AND THAMALI KELEGAMA