

Assoc. Prof. BARBAROS YET

Personal Information

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International Researcher IDs

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Education Information

Doctorate, University of London-Queen Mary and Westfield College, School of Electronic Engineering and Computer Science, Computer Science, United Kingdom 2010 - 2014

Postgraduate, Chalmers Tekniska Högskola (Chalmers University of Technology), Technology Management & Economics, Quality and Operations Management, Sweden 2008 - 2010

Undergraduate, Middle East Technical University, Faculty of Engineering, Department of Industrial Engineering, Turkey 2004 - 2008

Research Areas

Computer Sciences, Simulation and Modelling, Artificial Intelligence, Computer Learning and Pattern Recognition, Uncertainty Management, Decision Support Systems

Academic Titles / Tasks

Associate Professor, Middle East Technical University, Graduate School of Informatics, Cognitive Science, 2022 - Continues

Assistant Professor, Middle East Technical University, Graduate School of Informatics, Cognitive Science, 2020 - 2022

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, 2015 - 2020

Advising Theses

YET B., How does resource scarcity perception affect economic decision-making? An investigation of the cognitive and behavioral consequences of resource scarcity perception, Postgraduate, D.DEMİRCİOĞLU(Student), 2022

YET B., Implementing shared decision-making for returning to play sports after an injury using the Analytic Hierarchy Process (AHP) in a web application, Postgraduate, N.YILMAZ(Student), 2022

YET B., Shared decision making: A serious game based on OSCE for clinicians, Postgraduate, A.SÜLÜN(Student), 2022

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Statistical modelling of determinants of child stunting using secondary data and Bayesian networks: a UKRI Global Challenges Research Fund (GCRF) Action Against Stunting Hub protocol paper**
Rosenstock T. S., YET B.
BMJ PAEDIATRICS OPEN, vol.8, no.SUPPL_1, 2024 (SCI-Expanded)
- II. **The Role of Honor Concerns in Disclosing (vs. Hiding) COVID-19 Diagnosis: Insights from Türkiye**
Ceylan-Batur S., Doğulu C., Akbaş G., YET B., Uskul A. K.
Sex Roles, vol.89, no.7-8, pp.409-424, 2023 (SSCI)
- III. **A Multicriteria Method to Form Optional Preventive Maintenance Plans: A Case Study of a Large Fleet of Vehicles**
Guner G. G., Sakar C. T., YET B.
IEEE Transactions on Engineering Management, vol.70, no.6, pp.2153-2164, 2023 (SCI-Expanded)
- IV. **Celecoxib Nanoformulations with Enhanced Solubility, Dissolution Rate, and Oral Bioavailability: Experimental Approaches over In Vitro/In Vivo Evaluation**
Arslan A., YET B., NEMUTLU E., AKDAĞ ÇAYLI Y., EROĞLU H., ÖNER L.
Pharmaceutics, vol.15, no.2, 2023 (SCI-Expanded)
- V. **Reliability prediction for aircraft fleet operators: A Bayesian network model that combines supplier estimates, maintenance data and expert judgement**
Kucuker F. U., Yet B.
JOURNAL OF THE OPERATIONAL RESEARCH SOCIETY, vol.74, no.10, pp.2187-2198, 2023 (SCI-Expanded)
- VI. **Reducing the question burden of patient reported outcome measures using Bayesian networks**
Yuceturk H., Gulle H., TUNCER ŞAKAR C., Joyner C., Marsh W., ÜNAL E., Morrissey D., YET B.
JOURNAL OF BIOMEDICAL INFORMATICS, vol.135, 2022 (SCI-Expanded)
- VII. **Early Identification of Trauma-induced Coagulopathy: Development and Validation of a Multivariable Risk Prediction Model.**
Perkins Z., Yet B., Marsden M., Glasgow S., Marsh W., Davenport R., Brohi K., Tai N.
Annals of surgery, vol.274, 2021 (SCI-Expanded)
- VIII. **Effectiveness of intubation devices in patients with cervical spine immobilisation: a systematic review and network meta-analysis**
Singleton B. N., Morris F. K., YET B., Buggy D. J., Perkins Z. B.
BRITISH JOURNAL OF ANAESTHESIA, vol.126, no.5, pp.1055-1066, 2021 (SCI-Expanded)
- IX. **Analyzing the Simonshaven Case Using Bayesian Networks**
Fenton N., Neil M., Yet B., Lagnado D.
TOPICS IN COGNITIVE SCIENCE, vol.12, no.4, pp.1092-1114, 2020 (SSCI)
- X. **Estimating criteria weight distributions in multiple criteria decision making: a Bayesian approach**
Yet B., Sakar C. T.
ANNALS OF OPERATIONS RESEARCH, vol.293, no.2, pp.495-519, 2020 (SCI-Expanded)
- XI. **Predicting the Outcome of Limb Revascularization in Patients With Lower-extremity Arterial Trauma: Development and External Validation of a Supervised Machine-learning Algorithm to Support Surgical Decisions.**
Perkins Z. B., Yet B., Sharrock A., Rickard R., Marsh W., Rasmussen T. E., Tai N. R. M.
Annals of surgery, vol.272, no.4, pp.564-572, 2020 (SCI-Expanded)
- XII. **Integrating Risk into Project Control Using Bayesian Networks**
PİŞİRİR E., Su Y., YET B.
INTERNATIONAL JOURNAL OF INFORMATION TECHNOLOGY & DECISION MAKING, vol.19, no.5, pp.1327-1352, 2020 (SCI-Expanded)
- XIII. **Evidence-based investment selection: Prioritizing agricultural development investments under climatic and socio-political risk using Bayesian networks**
YET B., Lamanna C., Shepherd K. D., Rosenstock T. S.
PLOS ONE, vol.15, no.6, 2020 (SCI-Expanded)
- XIV. **Building Bayesian networks based on DEMATEL for multiple criteria decision problems: A supplier selection case study**

- Kaya R., YET B.
EXPERT SYSTEMS WITH APPLICATIONS, vol.134, pp.234-248, 2019 (SCI-Expanded)
- XV. **Cyber-physical-based PAT (CPbPAT) framework for Pharma 4.0**
VATANKHAH BARENJI R., Akdag Y., YET B., ÖNER L.
INTERNATIONAL JOURNAL OF PHARMACEUTICS, vol.567, 2019 (SCI-Expanded)
- XVI. **Long-term, patient-centered outcomes of lower-extremity vascular trauma**
Perkins Z. B., YET B., Glasgow S., Marsh D. W. R., Tai N. R. M., Rasmussen T. E.
JOURNAL OF TRAUMA AND ACUTE CARE SURGERY, vol.85, 2018 (SCI-Expanded)
- XVII. **An improved method for solving Hybrid Influence Diagrams**
YET B., Neil M., Fenton N., Constantinou A., Dementiev E.
INTERNATIONAL JOURNAL OF APPROXIMATE REASONING, vol.95, pp.93-112, 2018 (SCI-Expanded)
- XVIII. **Expected Value of Partial Perfect Information in Hybrid Models Using Dynamic Discretization**
YET B., Constantinou A., Fenton N., Neil M.
IEEE ACCESS, vol.6, pp.7802-7817, 2018 (SCI-Expanded)
- XIX. **The role of splenic angioembolization as an adjunct to nonoperative management of blunt splenic injuries: A systematic review and meta-analysis**
Crichton J. C. I., Naidoo K., YET B., Brundage S. I., Perkins Z.
JOURNAL OF TRAUMA AND ACUTE CARE SURGERY, vol.83, no.5, pp.934-943, 2017 (SCI-Expanded)
- XX. **Clinical evidence framework for Bayesian networks**
YET B., Perkins Z. B., Tai N. R. M., Marsh D. W. R.
KNOWLEDGE AND INFORMATION SYSTEMS, vol.50, no.1, pp.117-143, 2017 (SCI-Expanded)
- XXI. **How to model mutually exclusive events based on independent causal pathways in Bayesian network models**
Fenton N., Neil M., Lagnado D., Marsh W., YET B., Constantinou A.
KNOWLEDGE-BASED SYSTEMS, vol.113, pp.39-50, 2016 (SCI-Expanded)
- XXII. **A Bayesian network framework for project cost, benefit and risk analysis with an agricultural development case study**
YET B., Constantinou A., Fenton N., Neil M., Luedeling E., Shepherd K.
EXPERT SYSTEMS WITH APPLICATIONS, vol.60, pp.141-155, 2016 (SCI-Expanded)
- XXIII. **Value of information analysis for interventional and counterfactual Bayesian networks in forensic medical sciences**
Constantinou A. C., YET B., Fenton N., Neil M., Marsh W.
ARTIFICIAL INTELLIGENCE IN MEDICINE, vol.66, pp.41-52, 2016 (SCI-Expanded)
- XXIV. **Meta-analysis of prognostic factors for amputation following surgical repair of lower extremity vascular trauma**
Perkins Z. B., YET B., Glasgow S., Cole E., Marsh W., Brohi K., Rasmussen T. E., Tai N. R. M.
BRITISH JOURNAL OF SURGERY, vol.102, no.5, pp.436-450, 2015 (SCI-Expanded)
- XXV. **Combining data and meta-analysis to build Bayesian networks for clinical decision support**
YET B., Perkins Z. B., Rasmussen T. E., Tai N. R. M., Marsh D. W. R.
JOURNAL OF BIOMEDICAL INFORMATICS, vol.52, pp.373-385, 2014 (SCI-Expanded)
- XXVI. **Compatible and incompatible abstractions in Bayesian networks**
YET B., Marsh D. W. R.
KNOWLEDGE-BASED SYSTEMS, vol.62, pp.84-97, 2014 (SCI-Expanded)
- XXVII. **Not just data: A method for improving prediction with knowledge**
YET B., Perkins Z., Fenton N., Tai N., Marsh W.
JOURNAL OF BIOMEDICAL INFORMATICS, vol.48, pp.28-37, 2014 (SCI-Expanded)
- XXVIII. **Decision support system for Warfarin therapy management using Bayesian networks**
YET B., Bastani K., Raharjo H., Lifvergren S., Marsh W., Bergman B.
DECISION SUPPORT SYSTEMS, vol.55, no.2, pp.488-498, 2013 (SCI-Expanded)

Articles Published in Other Journals

- I. **Assessing Serious Spinal Pathology Using Bayesian Network Decision Support: Development and Validation Study**
Hill A., Joyner C. H., Keith-Jopp C., Yet B., Tuncer Sakar C., Marsh W., Morrissey D.
JMIR FORMATIVE RESEARCH, vol.7, pp.44187, 2023 (ESCI)
- II. **A Bayesian Network Decision Support Tool for Low Back Pain Using a RAND Appropriateness Procedure: Proposal and Internal Pilot Study**
Hill A., Joyner C. H., Keith-Jopp C., YET B., TUNCER ŞAKAR C., Marsh W., Morrissey D.
JMIR RESEARCH PROTOCOLS, vol.10, no.1, 2021 (ESCI)
- III. **Football Analytics using Bayesian Networks: the FutBA Model**
Karabıyık M., YET B.
Pamukkale University Journal of Engineering Sciences, vol.25, no.1, pp.121-131, 2019 (Peer-Reviewed Journal)
- IV. **Çok Kriterli Karar Verme Problemlerinde Fayda Fonksiyonu Ağırlıklarının Tahmin Edilmesi için Matematiksel Model Temelli bir Yöntem**
TUNCER ŞAKAR C., YET B.
Uludağ University Journal of The Faculty of Engineering, vol.23, no.1, pp.379-402, 2018 (Peer-Reviewed Journal)
- V. **COTTAPP: An Online University Timetable Application based on a Goal Programming Model**
Dursun T., Sü Y., Coşgun R., Durak A. S., YET B.
International Journal of Intelligent Systems and Applications in Engineering, vol.3, no.5, pp.117-123, 2017 (Peer-Reviewed Journal)
- VI. **Using operational data for decision making a feasibility study in rail maintenance**
Marsh W., Nur K., YET B., Majumdar A.
Safety and Reliability, vol.36, no.1, pp.35-47, 2016 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Decision Support for Project Management by using Diagnostic Inference and Explaining-Away in Bayesian Networks**
YET B., PİŞİRİR E.
6th International Conference on Decision Support System Technology (ICDSST 2020), Zaragoza, Spain, 27 - 29 May 2020, pp.131-136
- II. **Sınırlı Sayıda Veri ile Güvenilirlik Tahmini: SARP Modeli**
KÜÇÜKER F. U., YET B.
Sekizinci Ulusal Savunma Uygulamaları Modelleme ve Simulasyon Konferansı - USMOS 2019, Ankara, Turkey, 19 - 20 November 2019, pp.327-338
- III. **Improved Software Reliability Prediction by Using Model Stacking and Averaging**
Karaomer R. B., YET B., CHOUSEİNOGLOU O.
45th Euromicro Conference on Software Engineering and Advanced Applications (SEAA) / 22nd Euromicro Conference on Digital System Design (DSD), Kallithea, Greece, 28 - 30 August 2019, pp.186-192
- IV. **Probabilistic Earned Value Management Using Bayesian Networks**
YET B., SÜ Y.
INFORMS 2018, Phoenix, United States Of America, 2 - 06 November 2018, pp.488
- V. **A Probabilistic Approach for Indirect Elicitation of the Preferences of a Decision Maker**
YET B., TUNCER ŞAKAR C.
BALCOR 2018 - XIII Balkan Conference on Operational Research, Belgrade, Serbia And Montenegro, 25 - 28 May 2018, pp.39
- VI. **Towards an Evidence-Based Decision Support Tool for Management of Musculoskeletal Conditions**
YET B., Marsh W., Morrissey D.
Special Topic Conference of the European-Federation-for-Medical-Informatics (EFMI STC), Zagreb, Croatia, 15 -

16 October 2018, vol.255, pp.175-179

VII. A Framework to Present Bayesian Networks to Domain Experts and Potential Users

YET B.

Probability and Statistics in Forensic Science - Isaac Newton Institute for Mathematical Sciences, Cambridge, Canada, 18 July - 21 December 2016

VIII. Tek Değişkenli Meta analiz Sonuçları ve Çok Değişkenli Veriyi Birlikte Kullanarak Bayes Ağı Modelleri Öğrenme

YET B., Perkins Z., Tai N., Marsh W.

36. Yöneylem Araştırması ve Endüstri Mühendisliği Ulusal Kongresi (YAEM-2016), İzmir, Turkey, 13 - 15 July 2016, pp.56-57

IX. NEDENSEL BAYES AĞLARI İLE CERRAHİ KARAR DESTEK

YET B., Perkins Z., Tai N., Marsh W.

35. Yöneylem Araştırması ve Endüstri Mühendisliği Ulusal Kongresi (YAEM-2015), Ankara, Turkey, 9 - 11 September 2015

X. Project Cost Benefit and Risk Analysis using Bayesian Networks

YET B., Constantinou A., Fenton N., Neil M., Luedeling E., Shepherd K.

31st Conference on Uncertainty in Artificial Intelligence (UAI 2015) - Bayesian Applications Workshop, Amsterdam, Netherlands, 12 - 16 July 2015

XI. Explicit Evidence for Prognostic Bayesian Network Models

YET B., Perkins Z., Tai N., Marsh W.

25th European Medical Informatics Conference (MIE), İstanbul, Turkey, 31 August - 03 September 2014, vol.205, pp.53-57

XII. Predicting Latent Variables with Knowledge and Data A Case Study in Trauma Care

YET B., Marsh W., Perkins Z., Tai N., Fenton N.

29th Conference on Uncertainty in Artificial Intelligence (UAI 2013 - Bayesian Applications Workshop, BELLEVUE, WASHINGTON, United States Of America, 15 July 2013, vol.1024, pp.49

XIII. Towards a Method for Building Causal Bayesian Networks for Prognostic Decision Support

YET B., Perkins Z., Marsh W., Fenton N.

AIME'11 Workshop on Probabilistic Problem Solving in Biomedicine (ProBioMed-11), BLED, Slovenia, 02 July 2011, pp.107-120

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