

Asst. Prof. Ömer Faruk Beyca

Personal Information

Email: beyca@itu.edu.tr

Education Information

Doctorate, Oklahoma State University, Industrial Engineering & Management, United States Of America 2007 - 2013

Undergraduate, Fatih Üniversitesi, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, Turkey 2003 - 2007

Dissertations

Doctorate, SENSOR BASED REAL-TIME PROCESS MONITORING FOR ULTRA-PRECISION MANUFACTURING PROCESSES WITH NON-LINEARITY AND NONSTATIONARITY, Oklahoma State University, Industrial Engineering & Management, 2013

Research Areas

Technical Sciences, Industrial Engineering

Academic Titles / Tasks

Assistant Professor, İstanbul Teknik Üniversitesi, İşletme Fakültesi, Endüstri Mühendisliği Bölümü, 2018 - Continues

Assistant Professor, İstanbul Teknik Üniversitesi, İşletme Fakültesi, Endüstri Mühendisliği Bölümü, 2015 - 2018

Assistant Professor, Fatih Üniversitesi, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, 2014 - 2015

Academic and Administrative Experience

Fatih Üniversitesi, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, 2014 - Continues

Courses

Intr to Sci&Eng Comp (C), Undergraduate, 2016 - 2017

ADVANCED TOPICS IN SCHEDULING, Undergraduate, 2016 - 2017

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **A comparative analysis of machine learning techniques and fuzzy analytic hierarchy process to determine the tacit knowledge criteria**
Yazıcı İ., Beyca Ö. F., Gürcan Ö. F., Zaim H., Delen D., Zaim S.
ANNALS OF OPERATIONS RESEARCH, 2020 (Journal Indexed in SCI)
- II. **Using machine learning tools for forecasting natural gas consumption in the province of Istanbul**

Beyca Ö. F. , Ervural B. C. , Tatoglu E., ÖZUYAR P., ZAIM S.

ENERGY ECONOMICS, vol.80, pp.937-949, 2019 (Journal Indexed in SSCI)

- III. **Forecasting Intermittent Demand Using the Cox Process**
Kaya G. O. , Demirel O. F. , Beyca Ö. F.
JOURNAL OF MULTIPLE-VALUED LOGIC AND SOFT COMPUTING, vol.31, pp.425-441, 2018 (Journal Indexed in SCI)
- IV. **Dirichlet Process Gaussian Mixture Models for Real-Time Monitoring and Their Application to Chemical Mechanical Planarization**
Liu J. (, Beyca Ö. F. , Rao P. K. , Kong Z. (, Bukkapatnam S. T. S.
IEEE TRANSACTIONS ON AUTOMATION SCIENCE AND ENGINEERING, vol.14, no.1, pp.208-221, 2017 (Journal Indexed in SCI)
- V. **Heterogeneous Sensor Data Fusion Approach for Real-time Monitoring in Ultraprecision Machining (UPM) Process Using Non-Parametric Bayesian Clustering and Evidence Theory**
Beyca O. F. , RAO P. K. , KONG Z. , BUKKAPATNAM S. T. S. , KOMANDURI R.
IEEE TRANSACTIONS ON AUTOMATION SCIENCE AND ENGINEERING, vol.13, no.2, pp.1033-1044, 2016 (Journal Indexed in SCI)
- VI. **Time series forecasting for nonlinear and non-stationary processes: a review and comparative study**
Cheng C., SA-NGASOONGSONG A., Beyca O., Trung Le T. L. , Yang H., KONG Z. (, BUKKAPATNAM S. T. S.
IIE TRANSACTIONS, vol.47, no.10, pp.1053-1071, 2015 (Journal Indexed in SCI)
- VII. **A graph-theoretic approach for quantification of surface morphology variation and its application to chemical mechanical planarization process**
Rao P. K. , Beyca O. F. , KONG Z. (, BUKKAPATNAM S. T. S. , CASE K. E. , KOMANDURI R.
IIE TRANSACTIONS, vol.47, no.10, pp.1088-1111, 2015 (Journal Indexed in SCI)
- VIII. **Real-Time Identification of Incipient Surface Morphology Variations in Ultraprecision Machining Process**
Rao P., BUKKAPATNAM S., Beyca O., KONG Z. (, KOMANDURI R.
JOURNAL OF MANUFACTURING SCIENCE AND ENGINEERING-TRANSACTIONS OF THE ASME, vol.136, no.2, 2014 (Journal Indexed in SCI)
- IX. **Process-Machine Interaction (PMI) Modeling and Monitoring of Chemical Mechanical Planarization (CMP) Process Using Wireless Vibration Sensors**
Rao P. K. , BHUSHAN M. B. , BUKKAPATNAM S. T. S. , KONG Z. , BYALAL S., Beyca O. F. , FIELDS A., KOMANDURI R.
IEEE TRANSACTIONS ON SEMICONDUCTOR MANUFACTURING, vol.27, no.1, pp.1-15, 2014 (Journal Indexed in SCI)
- X. **Nonlinear Sequential Bayesian Analysis-Based Decision Making for End-Point Detection of Chemical Mechanical Planarization (CMP) Processes**
Kong Z., Beyca O., BUKKAPATNAM S. T. , KOMANDURI R.
IEEE TRANSACTIONS ON SEMICONDUCTOR MANUFACTURING, vol.24, no.4, pp.523-532, 2011 (Journal Indexed in SCI)
- XI. **Process Performance Prediction for Chemical Mechanical Planarization (CMP) by Integration of Nonlinear Bayesian Analysis and Statistical Modeling**
Kong Z. (, OZTEKIN A., Beyca O. F. , PHATAK U., BUKKAPATNAM S. T. S. , KOMANDURI R.
IEEE TRANSACTIONS ON SEMICONDUCTOR MANUFACTURING, vol.23, no.2, pp.316-327, 2010 (Journal Indexed in SCI)

Articles Published in Other Journals

I. Additive Manufacturing Technologies and Applications

Beyca Ö. F. , Hançerlioğulları Köksalınış G., Yazıcı İ.

INDUSTRY 4.0: MANAGING THE DIGITAL TRANSFORMATION, pp.217-234, 2018 (Refereed Journals of Other Institutions)

II. Clustering Techniques Within Service Sector

Yazıcı İ., Beyca Ö. F. , Zaim S.

APPLYING PREDICTIVE ANALYTICS WITHIN THE SERVICE SECTOR, pp.74-87, 2017 (Refereed Journals of Other Institutions)

Citations

Total Citations (WOS):220

h-index (WOS):10