

## Asst. Prof. NURAY ÖKTEM

### Personal Information

**Email:** noktem@aybu.edu.tr

**Web:** <https://avesis.aybu.edu.tr/bnuray>

### International Researcher IDs

ORCID: 0000-0002-4208-0294

Yoksis Researcher ID: 145286

### Education Information

Undergraduate, Hacettepe University, Fen Fakültesi, Matematik Bölümü, Turkey 1999 - 2003

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Application of the Boundary Element Method to Parabolic Type Equations, Middle East Technical University, Türk Halkoyunları, Graduate School Of Natural And Applied Sciences, 2010

Postgraduate, The Boundary Element Method Solutions of Diffusion and Scalar Wave Equations Using Time-Dependent Fundamental Solutions, Middle East Technical University, İnsan ve Toplum Bilimleri Fakültesi, Osmanlı Müesseseleri ve Medeniyeti Tarihi, 2005

### Research Areas

Natural Sciences

### Academic Titles / Tasks

Assistant Professor, Ankara Yıldırım Beyazıt University, Mühendislik ve Doğa Bilimleri Fakültesi, Matematik, 2017 - Continues

Research Assistant, Canakkale Onsekiz Mart University, Fen Ve Edebiyat Fakültesi, Matematik Bölümü, 2010 - Continues

Assistant Professor, Canakkale Onsekiz Mart University, Fen Ve Edebiyat Fakültesi, Matematik Bölümü, 2011 - 2017

Research Assistant, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Mathematics, 2005 - 2010

Research Assistant, Wessex Institute of Technology, Ashurst, Southampton, Fluid Mechanics, 2007 - 2008

### Courses

Linear Algebra, Undergraduate, 2020 - 2021

Symbolic Computations, Undergraduate, 2020 - 2021  
Calculus II, Undergraduate, 2020 - 2021  
Calculus II, Undergraduate, 2020 - 2021  
CALCULUS II, Undergraduate, 2017 - 2018  
CALCULUS I, Undergraduate, 2017 - 2018  
DIFFERENTIAL EQUATIONS (MSE), Undergraduate, 2017 - 2018  
ENGINEERING MATHEMATICS I (Diff-CENG), Undergraduate, 2017 - 2018  
ENGINEERING MATHEMATICS II (Diff - MCE), Undergraduate, 2017 - 2018  
NUMERİK ANALİZ 1, Undergraduate, 2016 - 2017  
MATEMATİK 1 (BTÖ), Undergraduate, 2016 - 2017  
MATEMATİK 1 (Kimya Bölümü), Undergraduate, 2016 - 2017

### **Published journal articles indexed by SCI, SSCI, and AHCI**

- I. **Effect of viscoelasticity in polymer nanofiber electrospinning: Simulation using FENE-CR model**  
AKKOYUN Ş., ÖKTEM N.  
Engineering Science and Technology, an International Journal, vol.24, no.3, pp.620-630, 2021 (SCI-Expanded)
- II. **On the use of shallow water equations in hydraulics Siğ akim denklemlerinin hidrolikte kullanılması üzerine değerlendirmeler**  
Nilay İçcen B., Öktem N., Yılmaz B., AYDIN İ.  
Teknik Dergi/Technical Journal of Turkish Chamber of Civil Engineers, vol.28, no.1, pp.7747-7764, 2017 (SCI-Expanded)
- III. **The DRBEM solution of incompressible MHD flow equations**  
Bozkaya N., Tezer-Sezgin M.  
International Journal for Numerical Methods in Fluids, vol.67, no.10, pp.1264-1282, 2011 (SCI-Expanded)
- IV. **Time-domain BEM solution of convection-diffusion-type MHD equations**  
Bozkaya N., Tezer-Sezgin M.  
International Journal for Numerical Methods in Fluids, vol.56, no.11, pp.1969-1991, 2008 (SCI-Expanded)

### **Articles Published in Other Journals**

- I. **Computer Code Development for the Numerical Solution of Two Dimensional Shallow Flow Equations on Unstructured Grid**  
ÖKTEM N.  
Sakarya University Journal of Science, vol.22, no.2, pp.364-382, 2018 (Peer-Reviewed Journal)

### **Refereed Congress / Symposium Publications in Proceedings**

- I. **An Efficient TVD-WAF Scheme Application for the 2D Shallow Water Equations on Unstructured Meshes**  
ÖKTEM N.  
2nd International Conference on Pure and Applied Mathematics (ICPAM-VAN 2018), Van, Turkey, 11 - 13 September 2018, pp.112
- II. **Boundary Element Analysis of Magnetohydrodynamic Pipe Flow Considering the Pipe Wall Thickness**  
ÖKTEM N.  
13th International Conference on Integral Methods in Science and Engineering (IMSE), Karlsruhe, Germany, 21 - 25 July 2014
- III. **A Numerical Solution for the System of Fully Developed MHD Flow Equations with BEM**

BOZKAYA N.

8th Congress of the International Society for Analysis, its Applications and Computation (ISAAC), Moskva, Russia, 22 - 27 August 2011

- IV. **Boundary Element Method Solution to Magnetohydrodynamic Pipe Flow**  
BOZKAYA N., BOZKAYA C.  
7th International Congress on Industrial and Applied Mathematics, Vancouver, Canada, 18 - 22 July 2011
- V. **The Time-Domain BEM Solution of Nonlinear Reaction-Diffusion Equations**  
BOZKAYA N.  
The Eight European Conference on Industrial and Applied Mathematics, Uppsala, Sweden, 29 June - 03 July 2009
- VI. **The DRBEM Solution of Incompressible MHD Flow Equations**  
BOZKAYA N.  
17th Annual Conference of the CFD Society of Canada, Ottawa, Canada, 3 - 05 May 2009
- VII. **The solution of 2D Unsteady Navier-Stokes Equations Using Boundary Element Method with Time-Dependent Fundamental Solution**  
BOZKAYA N.  
22nd Biennial Conference on Numerical Analysis, Dundee, United Kingdom, 26 - 29 June 2007
- VIII. **The Boundary Element Method Solutions of Diffusion and Scalar Wave Equations Using Time-Dependent Fundamental Solutions**  
BOZKAYA N.  
International Association for Boundary Element Methods Conference, Graz, Austria, 10 - 12 June 2006
- IX. **The Boundary Element Method Solutions of Diffusion and Scalar Wave Equations Using Time-Dependent Fundamental Solutions**  
BOZKAYA N.  
Workshop on Numerical Methods for Differential Equations, İzmir, Turkey, 12 May 2006

## Metrics

Publication: 14

Citation (Scopus): 38

H-Index (Scopus): 3

## Awards

Öktem N., Fakülte Üçüncüsü, Hacettepe Üniversitesi, July 2003

Öktem N., Bölüm İkinciliği, Hacettepe Üniversitesi, July 2003

## Non Academic Experience

Fluid Mechanics Department, Wessex Institute of Technology