

**ERCAN KAHYA**

Istanbul Technical University  
 Civil Engineering Department/ Hydraulics Division  
 34469 Ayazaga Campus  
 Maslak / Istanbul - TURKEY

Work Phone : +90 (212) 285 30 02  
 Mobile Phone : +90 (538) 945 94 20  
 Fax : +90 (212) 285 65 87  
 E-mail 1 : kahyae@itu.edu.tr  
 E-mail 2 : ercan.kahya@hotmail.com

**EDUCATION**

- 1989 - 1993 **Ph. D.**  
 Department of Civil Engineering  
 University of California, Los Angeles (UCLA), USA  
  
Major Field: Water Resources Engineering  
Minor Field: Atmospheric Sciences
- 1988 - 1989 Department of Civil Engineering  
 Columbia University (CU), New York, USA  
  
 Water Resources Engineering  
 Graduate Study (Ph. D.)
- 1986 - 1987 **M. Sc.**  
 Department of Civil Engineering  
 Polytechnic University (PU), New York, USA  
  
 Water Resources Engineering
- 1985 - 1985 *English Language Education*  
 June - Dec. ELS Language Center  
 Oklahoma City University (OCU), Oklahoma City, USA
- 1985 - 1985 *English Language Education*  
 Jan. - May Foreign Language Center  
 Middle East Technical University (METU), Ankara, Turkey
- 1984 - 1984 Department of Civil Engineering  
 Sep. - Dec. Bosphorus University (BU), Istanbul, Turkey  
  
 Hydraulic Engineering - Graduate Study (M. Sc.)
- 1980 - 1984 **B. Sc.**  
 Department of Civil Engineering  
 Istanbul Technical University (ITU), Istanbul, Turkey

**EXECUTIVE EXPERIENCE**

- 2002 - 2006 **Member of Executive Board**, Coastal Sciences and Engineering Graduate Program at ITU  
 Istanbul Technical University, Istanbul
- 2002 - 2004 **Vice Dean**, Institute of Science and Technology  
 Istanbul Technical University, Istanbul  
  
 (Responsible for the largest graduate student mass in Europe, over than 6,000 )

- 2002 - 2004 **Member of Executive Board**, Institute of Science and Technology  
Istanbul Technical University, Istanbul
- 2001 - 2003 **Member of Executive Board**, EURASIA Institute of Earth Sciences  
Istanbul Technical University, Istanbul
- 1996 - 1999 **Head of Hydraulic Division**, Civil Engineering Department  
Selçuk University, Konya
- 1996 - 1999 **Member of Executive Board**, Civil Engineering Department  
Selçuk University, Konya
- 1995 - 2000 **Chief of Hydraulic Laboratory**, Civil Engineering Department  
Selçuk University, Konya

### **ACADEMIC EXPERIENCE**

- 2008 - present **Assoc. Prof.**, Department of Civil Engineering  
American University of Sharjah (AUS), UAE
- (Teaching undergraduate level courses; Undertaking various water resources and hydro-meteorological researches; Presenting papers in international and national conferences; Participating in various academic commissions; etc.)
- 2006 - 2008 **Assoc. Prof.**, Department of Civil Engineering  
Istanbul Technical University (ITU), Istanbul
- (Teaching undergraduate and graduate level courses; Supervising M.S. and Ph.D. students; Undertaking various water resources and hydro-meteorological researches; Presenting papers in international and national conferences; Participating in various academic commissions; etc.)
- 2004 - 2006 **Assoc. Prof.**, Department of Civil Engineering  
American University in Dubai (AUD), UAE
- (Teaching undergraduate level courses; Conducting research activities. Participating in various academic commissions; etc.)
- 2001 - 2004 **Assoc. Prof.**, Department of Civil Engineering  
Istanbul Technical University (ITU), Istanbul
- (Same as above)
- 1998 - 2000 **Assoc. Prof.**, Department of Civil Engineering  
Selçuk University (SU), Konya
- (Same as above)
- 1994 - 1998 **Assist. Prof.**, Department of Civil Engineering  
Selçuk University (SU), Konya
- (Same as above)
- 1993 - 1994 **Water Resources Specialist**  
State Water Works (DSİ), Ankara, Turkey
- (Responsible for an irrigation project in Southern Anatolia Project (GAP); Establishing stochastic models for the reliability of active reservoir volumes; Performing various hydrologic works such as spillways-gates-outlet works, pressure conduits, water supply systems, flood damage

mitigation, and planning for water resources development.)

1993 - 1993 **Post-doc,**  
University of California, Los Angeles (UCLA), USA

(Performing a research regarding U.S. streamflow and La Nina events and preparing all relevant research works to be published in WRR journal; Investigating hydroelectric power and groundwater problems existed in Los Angeles.)

1990 - 1992 **Research Assistant,**  
University of California, Los Angeles (UCLA), USA

(Studying U.S. streamflow patterns in association with ENSO episodes; Applying various methodologies such as harmonic analysis, composite analysis, statistical models based on some theoretical PDF; Writing proposal and final reports; Presenting papers in conferences.)

1986 - 1987 **Laboratory Assistant,**  
Polytechnic University (PU), New York, USA

(Conducting undergraduate-level experiments in the hydraulic lab.)

### **CONSULTANCY EXPERIENCE**

2004 - 2006 **Consultant**  
Metropol Gulf Landscaping & Construction L.L.C., Dubai/UAE

(Preparing joint venture agreements; Presenting company profiles to new customers; Participating various business meeting; Evaluating project bids, Organizing work force, etc.)

### **SCHOLARSHIP AND AWARD**

1984 Ranked 5<sup>th</sup> among 300 graduates at ITU  
1985 - 1991 Government scholarship for postgraduate study in the USA  
1987 Tuition remission by Polytechnic University  
1992 Conference travel award by UCLA  
1992 Tuition Fellowship by UCLA  
1994 - present Personal value of Relative Citation Impact (RCI) > 25  
2006 Who's Who" in the World, 2006 (23<sup>rd</sup>) Edition

### **MEMBERSHIP**

Turkish Society of Civil Engineering, Istanbul, Turkey  
International Association of Hydrological Sciences, UK  
Turkish National Hydrology Commission, Ankara, Turkey  
Turkish Association of Preventing Traffic Accidents, Konya, Turkey (1999-2001)  
Turkish Business Council, Dubai, UAE (2004-2005)  
American Geophysical Union (AGU), USA  
European Geophysical Union (EGU), France  
International Association of Hydrological Sciences (IAHS), UK  
European Water Resources Association (EWRA)  
Joint Specialist Group (JSG) on Marine Outfalls & Coastal Environment, Istanbul  
UNCCD (United Nation Convention to Combat Desertification) Member of "Expert List"

### **RESEARCH STUDIES AND INTERESTS**

SURFACE WATER HYDROLOGY; GROUND WATER HYDROLOGY; HYDRAULICS; WATER RESOURCES; COASTAL ENGINEERING; ENVIRONMENTAL ENGINEERING; HYDROCLIMATOLOGY

- \* Climatological and Hydrological Variability
- \* Hydrologic Time Series Analysis, Stochastic Modeling
- \* Flood Hazard Modeling (current interest)
- \* Groundwater Modeling (current interest)
- \* Hydroclimatological Modeling Coupled with GCMs (current interest)
- \* Contaminations in Water Systems (current interest)
- \* Coastal Zone Management (current interest)
- \* Climate Change and Drought (current interest)

#### **FACULTY/DEPARTMENT COMMITTEE MEMBERSHIP**

- 1) Library Committee; School of Engineering and Architecture, SU (1995-1997)
- 2) Organizing Courses in Foreign Language Committee; School of Eng. and Architecture, SU (1995-1997)
- 3) Doctorate Thesis Supervision Committee; Graduate School, SU (1995-1997)
- 4) Doctorate Qualifying Committee of Hydraulics and Water Resources Division; ITU (2004- )
- 5) Examination Committee; Coastal Sciences and Engineering Program, Graduate School, ITU (2004-2006)
- 6) Library Committee; School of Engineering, American University in Dubai; AUD (2005-2006)
- 7) *Individual Task*: Faculty Advisor, American University in Dubai; AUD (2005-2006)
- 8) TSE (Turkish Standard Institution) and ISO Standards Committee; Civil Eng. Faculty, ITU (2007- )

#### **FACULTY/DEPARTMENT COMMITTEE MEMBERSHIP AT AUS**

- ✦ Curriculum Committee [2008- ]
- ✦ Outreach, Alumni & Graduate Students Recruitment Committee [2008- ]
- ✦ Faculty Search Committee (AUS) [2008- ]
- ✦ Graduate Program Admission Committee [2008- ]
- ✦ Curriculum Committee [2008-devam]
- ✦ *Individual Task*: Design Project Coordinator [2008- ]
- ✦ *Individual Task*: Extra-curriculum Activities Coordinator [2008- ]

#### **SCIENTIFIC MEETING ORGANIZATION AND SCIENTIFIC COMMITTEE MEMBERSHIP**

- 1) **Panel Organization and Speaker**: Topic: “*Trans-boundary Rivers/Climate Change/El Nino*”; Speakers: Prof. Zekai Şen, Dr. Mikdat Kadioğlu, Dr. Ercan Kahya; Date: *08 September 1998*; Place: SU Conference Room, Konya.
- 2) **Seminar Organization**: Topic: “Prediction of Streamflow and Precipitation based on Large-Scale Atmospheric Circulation”; Speaker: Prof. John A. Dracup (UC Berkeley); Date: *28 Mart 2001*, Place: ITU SDKM Conference Room, Istanbul.
- 3) **Panel Organization and Speaker**: Topic: “Restructuring Graduate Education”; Speakers: Prof. Mehmet Karaca, Prof. Nüşet Dalfes and Assoc. Prof. Ercan Kahya; Date: *10 Nisan 2002*; Place: Dumlupınar University, Kütahya.
- 4) **Scientific Committee Membership**: Title of Meeting: “*II. National Water Engineering Symposium*”; Date: *21-24 September 2005*; Place: Gümüşdör/İzmir.
- 5) **Seminar Organization**: Topic: “Chemically reactive, degrading mass transfer in an aquifer: 2 Dimensional numerical simulation with the ADI scheme”; Speaker: Dr. A. Osman Beg (Professor of Fire Dynamics Leeds College of Building); Date: *19 April 2006*; Place: American University in Dubai, UAE.
- 6) **Scientific Committee Membership**: Title of Meeting: “*I. Turkey Climate Change Congress TIKDEK’2007*”; Date: *11-13 April 2007*; Place: ITU, Istanbul.
- 7) **Scientific Committee Membership**: Title of Meeting: “*III. National Water Engineering Symposium*”; Date: *10-14 September 2007*; Place: Gümüşdör/İzmir.
- 8) **Organization & Scientific Committee Membership and Speaker**: Title of Meeting: “Global Climate Change and Its Environmental Impacts: Regional and Local Dimensions”; Date: *18-20 October 2007*; Place: Konya.

- 9) **Scientific Committee Membership:** Title of Meeting: “*Forest and Environmental Problems in the Context of Global Climate Change and Water Symposium*”; Date: 29-30 November 2007; Place: Istanbul University, Istanbul.
- 10) **Scientific Committee Membership:** Title of Meeting: “*MWWD 2008–5<sup>th</sup> International Conference on Marine Waste Water Discharges and Coastal Environment*”; Date: 18-20 October 2008; Place: Dubrovnik/Croatia.
- 11) **Organization & Scientific Committee Membership:** Title of Meeting: “*Climate Extremes during Recent Millennia and their Impact on Mediterranean Societies*”; Date: 14-16 September 2008; Place: National and Kapodistrian University of Athens Athens, Greece, (Other members: Henry Diaz (NAOO-USA); Ray Bradley; Ricardo Garcia; Phil Jones; Elena Xoplaki; Malcom Huges; Ricardo Garcia-Herrera and Juerg Luterbacher).
- 12) **Scientific Committee Membership:** Title of Meeting: “*IV. National Water Engineering Symposium*”; Date: 6-10 July 2009; Place: Orhantepe/Istanbul.

### **OTHER ACADEMIC/EXECUTIVE/SOCIAL ACTIVITIES**

- 1) Juror in many M. Sc. and Ph.D. thesis defense, Civil Eng. Dept., SU, (1995-2000)
- 2) Juror in many M. Sc. and Ph.D. thesis, Civil Eng. Dept., ITU, (2001- )
- 3) Evaluating EU and TUBITAK (aka; Turkish NSF) project proposals
- 4) Evaluator - ESA Earth Observatory R&D Section (<http://eopi.esa.int/>)
- 5) Faculty Advisor – School of Engineering, AUD, (2004-2006)
- 6) Session Chair in many national and international conferences
- 7) Speaker on national TV channels (i.e., TRT2, Medical Channel, News Turk, Kon TV, Channel 24)

### **COURSES LECTURED**

#### **Undergraduate Level Courses** (Lectured in Turkish at SU: 1995-2000)

- Fluid Mechanics
- Hydraulics (Both Civil and Mining Eng. departments)
- Hydrology
- Water Resources Engineering
- Statistics (Both Civil and Industrial Eng. departments)
- Senior Design Project

#### **Graduate Level Courses** (Lectured in Turkish at SU: 1995-2000)

- Open Channel Hydraulics
- Stochastic Modeling in Hydrology
- Hydrological Systems Analysis
- Advanced Hydrology

#### **Undergraduate Level Courses** (Lectured in English at ITU: 2001-present)

- Water Resources
- Hydrology
- Probability and Statistics
- Senior Design Project
- Fluid Mechanics
- Hydraulics

#### **Graduate Level Courses** (Lectured in English at ITU: 2002-present)

- Hydroclimatology (doctorate-level)

#### **Undergraduate Level Courses** (Lectured in English at American University in Dubai (AUD): 2004-2006)

- |                             |             |
|-----------------------------|-------------|
| ▪ Environmental Engineering | ▪ Dynamics  |
| ▪ Hydrology                 | ▪ Statics   |
| ▪ Fluid Mechanics           | ▪ Geomatics |

- Coastal Engineering
- Senior Design Project

**Undergraduate Level Courses** (Lectured in English at American University of Sharjah (AUS): 2008-present)

- Water Resources Engineering
- Capstone Design Project
- Fluid Mechanics

### **DEVELOPED CURRICULUM AND PROGRAM**

- *Stochastic Modeling in Hydrology* – Graduate School of Selcuk University (SU), Turkey (1995-2000)
- *Open Channel Hydraulics* – Graduate School of Selcuk University (SU), Turkey (1995-2000)
- “*Coastal Sciences and Engineering Graduate Program*” – Graduate School of ITU, Turkey (2002 - )
- *Hydroclimatology* – Graduate School of ITU, Turkey (2004 - )
- *Coastal Engineering* – Civil Eng Dept. of American University in Dubai (AUD) (2005-2006)
- *Senior Design Project-Coastal Engineering* – Civil Eng Dept. of American University in Dubai (AUD) (2005-2006)

### **GRADUATE STUDENT ADVISORY ACTIVITIES**

#### **M. Sc. Thesis:**

- 1) M. Çağatay Karabörk, 1997 (Civil Eng. Dept., SU): Stochastic Modeling of Annual and Monthly Streamflows.
- 2) Naci Büyükkaracıgan, 1997 (Civil Eng. Dept., SU): A Comparison of Various Distributions Used in Frequency Analysis, Applying to Annual Peak Series of Konya Basin.
- 3) Nermin Şarlak, 1998 (Civil Eng. Dept., SU): Analysis of Critical Drought with First Order Markov Chain Model.
- 4) Cemal Gürses, 1998 (Civil Eng. Dept., SU): Frequency Analysis of Annual Peak Flows in Konya Basin by L-Moments.
- 5) Serdar Kalaycı, 1997 (Civil Eng. Dept., SU): Determination of Water Quality Trends in Streamflows of Susurluk Basin (Honorary Advisor).
- 6) Ömer Köse, 1999 (Civil Eng. Dept., SU): Drought Analysis of Monthly Streamflows in the Konya Basin by Using Poisson Distribution (Honorary Advisor).
- 7) Turgay Partal, 2003 (Civil Eng. Dept., ITU): Trend Analysis of Turkish Precipitation Patterns.
- 8) M. Cüneyd Demirel, 2004 (Civil Eng. Dept., ITU): Cluster Analysis of Streamflow in Turkey.
- 9) Şahin Akagündüz (Civil Eng. Dept., ITU): Low Flow Regionalization in Turkey

#### **Ph. D. Thesis:**

- 1) M. Çağatay Karabörk, 2000 (Civil Eng. Dept., SU): Influences of El Nino and La Nina Events on Streamflows in Turkey [Dr. Karabörk is currently an associate professor at Dumlupınar University].
- 2) Serdar Kalaycı, 2003 (Civil Eng. Dept., SU): The Variability Analysis of Turkish Streamflows [Dr. Kalaycı is currently Mayor of Meram Municipality, Konya].
- 3) Taner M. Cengiz, 2005 (Civil Eng. Dept., ITU): Hydroclimatological Analysis of Lake Levels in Turkey [Dr. Cengiz is currently an assistant professor at Namık Kemal University].

- 4) Ali İhsan Martı, 2006 (Civil Eng. Dept., SU): Streamflow and Precipitation Forecasting Models Based on Their Relationships with the Southern Oscillation. [*Dr. Martı is currently an assistant professor at Selçuk University*].
- 5) Turgay Partal, 2007 (Civil Eng. Dept., ITU): Forecasting Model of Turkish Precipitation Data Based on Neural Networks and Wavelet Methods (with a co-advisor) [*Dr. Partal is currently an assistant professor at Dumlupınar University*].
- 6) Murat Gül (Civil Eng. Dept., ITU): Flood Hazard Modeling.
- 7) M. Cüneyd Demirel (Civil Eng. Dept., ITU): Coastal Zone Management: Marmara Sea (with a co-advisor)

### **CONFERENCE ACTIVITIES**

- 1) **Invited Speaker:** Symposium on “The World at Risk: Natural Hazards and Climate Change”, MIT, Cambridge, USA, January 14-16, 1992.
- 2) **Invited Speaker:** Workshop on ENSO and Its Influence on Pacific Rim Streamflow, UCLA, Los Angeles, USA, November 28 - December 3, 1993.
- 3) **Invited speaker:** “Statistical concepts in understanding and modeling hydro-climatic change.” HS41 at EGU General Assembly, (for details: <http://meetings.copernicus.org/egu2007/>), Vienna, 2007.
- 4) **Invited speaker:** “Global Climate Change and Its Environmental Impacts: Regional and Local Dimensions”, Konya/Turkey, October 18-20, 2007.
- 5) **Invited speaker:** “Floods, Avalanches, Preservation River Beds”, Trabzon/Turkey, August 7-8, 2008.
- 6) 16<sup>th</sup> Annual Climate Diagnostics Workshop, UCLA, Los Angeles, USA, October 28-Nov. 1, 1991.
- 7) 9<sup>th</sup> Annual Pacific Climate (PACLIM) Workshop, Asilomar, CA, USA, April 21-24, 1992
- 8) 17<sup>th</sup> Annual Climate Diagnostics Workshop, University of Oklahoma, Norman, USA, 19-23 October, 1992
- 9) Hydrometeorology Session at American Geophysical Union (AGU) Meeting, San Francisco, USA, Fall of 1992
- 10) International Conference on “Water Problems in Mediterranean Countries”, NEU, Nicosia, North Cyprus, 17-21 November, 1997 <Presented two articles>
- 11) 1<sup>st</sup> International Workshop on “Environmental Quality and Environmental Engineering in the Middle East Region” Symposium, Konya, Turkey, 5-7 October, 1998 (poster)
- 12) 1<sup>st</sup> National Climatology Workshop, Ege University, İzmir, Turkey, 11-13 April, 2002 <Co-author of two articles>
- 13) 3<sup>rd</sup> International Symposium on AGRO-ENVIRON 2002, Cairo, Egypt, 26-29 October, 2002  
<Technical Session-3(B) Environment and Climate Change, *Session Chair* and co-author of four articles>
- 14) XXX IAHR: Water Engineering and Research in Learning Society” Thessalonica, Thessalonica, Greece 24-29 September, 2003 <Theme B-Precipitation, *Session Chair* and co-author of four articles>
- 15) 1<sup>st</sup> National Dams and Hydro-electrical Power Plants, State Water Works General Directorate, Ankara, Turkey, 1-3 June, 2004 <*Session Chair* and co-author of two articles>
- 16) AGU Hydrology Days 2007, 19-21 March, Colorado State University, Fort Collins, CO, USA  
<Presented 2 oral and 9 poster papers>
- 17) III. National Water Engineering Symposium, Gümüldür/İzmir, Turkey, 10-14 September, 2007  
<*Session Chair* and presented one article>

### **As a Participant:**

- 1) Special meeting at *Scripps Institution of Oceanography*, UCSD, La Jolla, CA, USA, 1991.
- 2) Hydrology and Hydrometeorology Sessions at American Geophysical Union (AGU) Meeting, San Francisco, USA, Fall of 1991.
- 3) 2<sup>nd</sup> National Hydrometeorology Symposium, State Meteorology Works General Directorate, Ankara, 18-20 December, 1998 <Co-author of five articles>
- 4) 5<sup>th</sup> Congress on Advances in Civil Engineering (ACE 2002), Istanbul Technical University, Istanbul, 25-27 September, 2002 <Session Chair and co-author of three articles>
- 5) 1<sup>st</sup> National Water Engineering Symposium, DSİ, Gümüşdör-İzmir, 22-26 September, 2003 <Session 1-Monday, Session Chair and co-author of two articles>

### **REFEERE ACTIVITIES FOR PEER-REVIEWED JOURNALS**

#### ***“SCI & SCI Exp – ISI Thomas Scientific” Journals***

- ◆ (3) International Journal of Climatology
- ◆ (1) Water Resources Research
- ◆ (2) Hydrology and Earth System Sciences
- ◆ (1) Climatic Change
- ◆ (2) Hydrological Processes
- ◆ (2) Proceedings of ICE Journal - Water Management
- ◆ (1) Iranian Journal of Science & Technology
- ◆ (7) Advances in Engineering Software
- ◆ (1) Asia-Pacific Journal of Atmospheric Sciences
- ◆ (1) Irrigation Science
- ◆ (2) Fresenius Environmental Bulletin
- ◆ (4) Water and Environment Journal
- ◆ (2) Journal of Hydrology
- ◆ (1) Natural Hazards
- ◆ (17) Journal of Hydrologic Engineering
- ◆ (1) Journal of Geophysical Research
- ◆ (2) Physics and Chemistry of the Earth
- ◆ (2) Water Science and Technology

**Total: 52**

#### ***“Master List SCI – ISI Thomas Scientific” Journals***

- ◆ (11) Journal of Applied Sciences
- ◆ (4) Pakistan Journal of Biological Sciences
- ◆ (1) Research Journal of Environmental Sciences

**Total: 16**

#### ***“Other Indexed” Journals***

- ◆ (1) International Journal of Agricultural Research
- ◆ (1) Online Journal of Earth Sciences
- ◆ (1) Asian Journal of Biochemistry
- ◆ (1) Journal of Biological Sciences

**Total: 4**

#### ***“National” Journals***

- ◆ (1) CBÜ Science Journal

**Total: 1**

### **CITATION**

- Total number of citations: > **570** (**338** appeared in the *ISI Web of Knowledge*)

### **EDITORIAL BOARD MEMBERSHIP IN PEER-REVIEWED JOURNAL**

- **Associate Editor:** Journal of Hydrology (Elsevier - SCI) (2009- )
- Research Journal of Applied Sciences (Medwell) (2006- )
- Online Journal of Earth Sciences (Medwell) (2006- )
- Journal of Engineering and Applied Sciences (Medwell) (2006- )
- Research Journal of Biological Sciences (Medwell – ISI Thomas Scientific Master List) (2007- )
- Pakistan Journal of Biological Sciences (ANSI – ISI Thomas Scientific Master List) (2007-2009)
- Journal of Applied Sciences (ANSI – ISI Thomas Scientific Master List) (2007-2009)
- Journal of Selcuk University Engineering-Architecture Faculty (1995-2000)

**PUBLICATION****Theses:**

- 1) Kahya, E., 1984: Design of Steel Structures. B.Sc. Senior Project, Istanbul Technical University, Istanbul, Turkey
- 2) Kahya, E., 1987: Reservoir Operating Rules Generated by Stochastic Optimization. M.Sc. Project, Polytechnic University, New York, USA
- 3) Kahya, E., 1993: United States Streamflow Patterns in Relation to the Extreme Phases of the Southern Oscillation. Ph.D. Thesis, University of California, Los Angeles, USA

**Book Chapters in Preparation:**

- 1) O.A. Bég, H.S. Takhar, Tasverr A. Bég, G. Woo and E. Kahya, 2009: Chapter 3: Hydrodynamics of Flood Hazards in “Hydrodynamic Hazards in Civil Engineering: Mathematical Models and Case-Studies.”, *Cambridge University Press*.

**Journal Papers:*****SCI Papers:***

- 1) Kahya, E. and J. A. Dracup, 1993: U.S. Streamflow Patterns in Relation to the El Nino / Southern Oscillation. *Water Resources Research*, Vol. 29, No 8, 2491-2503.
- 2) Dracup, J. A. and E. Kahya, 1994: The Relationships between U.S. Streamflow and La Nina Events. *Water Resources Research*, Vol. 30, No 7, 2133-2141.
- 3) Kahya, E. and J. A. Dracup, 1994: The Influences of Type I ENSO and La Nina Events on Streamflows in the Southwestern United States. *Journal of Climate*, Vol. 7, No 6, 965-976.
- 4) Kahya, E. and M.Ç. Karabörk, 2001: The Analysis of El Nino and La Nina Signals in Streamflows of Turkey. *International Journal of Climatology*, Vol. 21, No 10, 1231-1250.
- 5) Karabörk, M. Ç. and E. Kahya, 2003: The Teleconnections between the Extreme Phases of the Southern Oscillation and Precipitation Patterns over Turkey. *International Journal of Climatology*, Vol. 23, No 13, 1607-1625.
- 6) Kahya, E. and S. Kalaycı, 2004: Trend Analysis of Streamflow in Turkey. *Journal of Hydrology*, Vol. 289, 128-144.
- 7) Kalaycı, S., M.Ç. Karabörk and E. Kahya, 2004: Analysis of El Nino Signals on Turkish Streamflow and Precipitation Patterns Using Spectral Analysis. *Fresenius Environmental Bulletin*, Vol. 13, No 8, 719-725.
- 8) Karabörk, M. Ç., E. Kahya and M. Karaca, 2005: The Influences of the Southern and North Atlantic Oscillations on Hydrometeorological Surface Parameters in Turkey. *Hydrological Processes*, Vol. 19, No 6, 1185-1211.
- 9) Kalaycı, S. and E. Kahya, 2006: Assessment of Streamflow Variability Modes in Turkey: 1964-1994. *Journal of Hydrology*, Vol. 324, 163-177.
- 10) Partal, T. and E. Kahya, 2006: Trend Analysis in Turkish Precipitation Data. *Hydrological Processes*, Vol. 20, No 9, 2011-2026.
- 11) Karabörk, M.Ç., E. Kahya and A.Ü. Kömüşçü, 2007: Analysis of Turkish Precipitation Data: Homogeneity and the Southern Oscillation Forcing on Frequency Distributions. *Hydrological Processes*, Vol. 21, No 23, 3203-3210.
- 12) Kahya, E., S. Kalaycı and T.C. Piechota, 2008: Streamflow Regionalization: Case Study of Turkey. *Journal of Hydrologic Engineering*, Vol. 13, No 4, 205-214.

- 13) Bég, A.O., J. Zueco, T.A. Bég, H.S. Takhar, and E. Kahya, 2008: NSM Analysis of Time-dependent Nonlinear Buoyancy-driven Double-diffusive Radiative Convection Flow in Non-darcy Geological Porous Media. *Acta Mech*, Vol. 202, 181-204, DOI: 10.1007/s00707-008-0018-6
- 14) Demirel, M.C., A. Venancio and E. Kahya, 2008: Flow Forecast by SWAT Model and ANN in Pracana Basin, Portugal. *Advances in Engineering Software*, Vol. 40, No 7, 467-473, DOI: 10.1016/j.advengsoft.2008.08.002.
- 15) Ganapuram, S., G. T. V. Kumar, I. V. M. Krishna, E. Kahya and M.C. Demirel, 2008: Mapping of Ground Water Potential Zones in the Musi Basin Using Remote Sensing Data and GIS. *Advances in Engineering Software*, Vol. 40, No 7, 506-518, DOI: 10.1016/j.advengsoft.2008.10.001.
- 16) Kahya, E., M.C. Demirel and A.O. Bég, 2008: Hydrologic Homogeneous Regions Using Monthly Streamflow in Turkey. *Earth Sciences Research Journal*, Vol. 12, No 2, 57-69.
- 17) Küçük M., E. Kahya, T.M. Cengiz and M. Karaca, 2008: North Atlantic Oscillation Influences on Turkish Lake-levels by Wavelet Analysis. *Hydrological Processes*, Vol. 23, No 6, 893-906, DOI: 10.1002/hyp.7225.
- 18) Şarлак, N., E. Kahya and A.O. Bég, 2008: Critical Drought Analysis: A Case Study of Göksu River (Turkey) and North Atlantic Oscillation Influences. *Journal of Hydrologic Engineering*, DOI:10.1061/(ASCE)HE.1943-5584.0000052.
- 19) Karabörk, M. Ç. and E. Kahya, 2008: The Links between the Categorized Southern Oscillation Indicators and Climate and Hydrologic Variables over Turkey. *Hydrological Processes* (in press)
- 20) Martı, A.I., E. Kahya, M.C. Demirel and O.A. Bég, 2008: ENSO Modulations on Streamflow Characteristics. *Earth Sciences Research Journal* (in press)
- 21) Kahya, E. and A.I. Martı, 2009: Footprints of ENSO Events on Precipitation Characteristics in Turkey. *Hydrological Processes* (in press)
- 22) Kahya, E. and M.C. Demirel, 2009: Grouping of Streamflow Characteristics in Portugal. *Earth Sciences Research Journal* (in press)
- 23) Ganapuram, S., G. T. V. Kumar, T. Jayababu, E. Kahya and M.C. Demirel, 2009: Study of Long Term Shoreline Changes at Penner River Mouth using Remote Sensing and Digital Shoreline Analysis System in GIS. *Advances in Engineering Software* (in press)
- 24) Kahya, E., F. Yılmaz, A. Sahin, C. Yerdelen, and I. Can, 2009: NAO Signals in Turkish climate data. *Hydrological Processes* (in press)
- 25) Demirel, M.C, A.J. Mariano and E. Kahya, 2009: Appropriate Model Selection based on K Means for Flow Forecasting. *Hydrological Processes*
- 26) Demirel, M.C. and E. Kahya, 2009: Hydrological Regionalization in Turkey. *Water Resources Research* (in review)

### **EI Papers:**

- 1) Kalaycı, S. ve E. Kahya, 1998: Susurluk Havzası'ndaki Akarsularda Su Kalitesi Trendlerinin Analizi. *DOĞA-Türk Mühendislik ve Çevre Bilimleri Dergisi* (TÜBİTAK), Cilt 22, Sayı 6, 503-514.
- 2) Karabörk, M. Ç. ve E. Kahya, 1999: Sakarya Havzası'ndaki Akarsu Akımlarının Çok Değişkenli Stokastik Modellemesi. *DOĞA- Türk Mühendislik ve Çevre Bilimleri Dergisi* (TÜBİTAK), Cilt 23, Sayı 6, 133-147.
- 3) Bég, A.O., J. Zueco, T.A. Bég, H.S. and E. Kahya, 2008: Numerical Modeling of Unsteady Rotating Couette Flow in a High-Porosity Medium Channel at low Ekman Numbers. *Turkish Journal of Engineering and Environmental Sciences* (in review)
- 4) Narahari, M., H. S. Takhar, O. Anwar Bég and E. Kahya 2009: Mathematical Modeling of Transient Double-diffusive Convection in a Vertical Parallel Plate Channel with Constant Temperature and Mass Diffusion. *Turkish Journal of Engineering and Environmental Sciences* (in review)

**Other Index Papers:**

- 1) Kalaycı, S. and E. Kahya, 2004: Streamflow Trends in Sakarya Basin. *ARI, The Bulletin of the Istanbul Technical University*, Vol. 54, No 3, 79-84.
- 2) Kahya, E. and M. C. Demirel, 2007: A Comparison of Low-Flow Clustering Methods: Streamflow Grouping. *Journal of Engineering and Applied Sciences*, 2 (3), 524-530.
- 3) Kahya, E. and T. Partal, 2007: Is Seasonal Precipitation Decreasing or Increasing in Turkey? *Online Journal of Earth Sciences*, 1 (1): 43-46.
- 4) Anwar, O. Bég, R. Bhargava, S. Rawat and E. Kahya, 2008: Numerical Study of Micropolar Convective Heat and Mass Transfer in a Non-Darcy Porous Regime with Soret and Dufour Diffusion Effects. *Emirates Journal for Engineering Research*, 13 (2), 51-66.
- 5) Bég, A.O., E. Kahya, J. Zueco, and T.A. Bég, 2008: Numerical Solutions for Viscoelastic Mud Flow down an Inclined Plane with Porous Impedance and Inertial Effects: Part 1- Mathematical Model. *International Journal of Applied Mathematics and Mechanics* (in press)
- 6) Bég, A.O., S.K. Ghosh, J. Zueco, and E. Kahya, 2008: Free and Forced Magnetohydrodynamic Radiation-convection with surface temperature oscillation and Secondary Flow Effects. *Journal of Applied Fluid Mechanics* (in press)
- 7) Bég, A.O., A.Y. Bakier, V.R. Prasad, and E. Kahya, 2008: Laminar Mixed Convection Heat and Mass Transfer in Boundary Layer Flow along an Inclined Plate with Soret and Dufour Effects: A Model for Solar Plate Collectors. *Mathematical and Computer Modelling Journal* (in review)

**National Papers (Turkish):**

- 1) Karabörk, M. Ç. ve E. Kahya, 1998: Göksu Nehri'nin Aylık ve Yıllık Akımlarının Otoregressif Modelleri. *Selçuk Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi*, Cilt 13, Sayı 1, 23-36.
- 2) Cengiz, T.M. ve E. Kahya, 2006: Türkiye Gol Su Seviyeleri Egilim ve Harmonik Analizi. *Itudergisi/d*, 5(3), 215-224.
- 3) Partal, T., E. Kahya, ve K. C., 2008: Yağış Verilerinin Yapay Sinir Ağları ve Dalgacık Dönüşümü Yöntemleri ile Tahmini. *Itudergisi/d*, 7(3), 73-85.

**Journal Papers in Preparation:**

- 1) Büyükkaracığın, N., E. Kahya and A.Ü. Kömüşçü, 2009: Analysis of Flood Peaks in mid-Turkey (will be submitted to *Hydrological Processes*).
- 2) Can, İ., C. Yerdelen, and E. Kahya, 2009: Streamflow Modelling in Çoruh Basin, Turkey (will be submitted to *Journal of Hydrologic Engineering*).

**SCI Journal Discussions:**

- 1) Demirel, M.C., E. Kahya and D. Rivera, 2008: Discussion of "Clustering On Dissimilarity Representations for Detecting Mislabeled Seismic Signals at Nevado Del Ruiz Volcano" by Mauricio Orozco-Alzate, and César Germán Castellanos-Domínguez, *Earth Sciences Research Journal*, Vol. 12, No. 2, 141-143.
- 2) Demirel, M.C., E. Kahya and D. Rivera, 2008: Discussion of "Hydrologic Regionalization of Watersheds in Turkey" by Sabahattin Isik and Vijay P. Singh, *Journal of Hydrologic Engineering* (in press).

**Proceeding Papers:****National (in Turkish):**

- 1) Kahya, E. and N. Şarlak, 1998: Critical Drought Analysis of Göksu River Streamflow Using a Markov Chain Model. II. National Hydrometeorology Symposium, Ankara.
- 2) Kahya, E. and N. Büyükkaracığan, 1998: Flood Frequency Analysis of Annual Peak Flows in the Susurluk Basin. II. National Hydrometeorology Symposium, Ankara.
- 3) Kahya, E. and C. Gürses, 1998: Flood Frequency Analysis of Annual Peak Flows in the Konya Basin by L-Moment Method. II. National Hydrometeorology Symposium, Ankara.
- 4) Kahya, E., Ç. Karabörk and S. Kalaycı, 1998: Applications of ARIMA and Multivariate Stochastic Modeling in the Yeşilırmak Basin. II. National Hydrometeorology Symposium, Ankara.
- 5) Köse, Ö., E. Kahya and A. Dorum, 1998: Analysis of Drought Parameters in the Central Anatolia. II. National Hydrometeorology Symposium, Ankara.
- 6) Karabörk, M.Ç., E. Kahya and M. Karaca, 2002: North Atlantic Oscillation and its Possible Influences over Turkey, First National Climatology Workshop, Ege University, İzmir.
- 7) Kahya, E., M.Ç. Karabörk and M. Karaca, 2002: Climatological Analysis of El Nino and La Nina Signals in Turkish Streamflows, First National Climatology Workshop, Ege University, İzmir.
- 8) Cengiz, T., E. Kahya and M. Karaca, 2003: Trend Analysis of Lake Levels in the Lake Region. First National Water Engineering Symposium, DSİ, Gümüldür - İzmir, 22-26 September, 2003.
- 9) Partal, T., E. Kahya and M. Karaca, 2003: Trend Analysis of Precipitation in the Lake Region. First National Water Engineering Symposium, DSİ, Gümüldür-İzmir, 22-26 September, 2003
- 10) Ezber, Y., Y. Ünal, E. Kahya and M. Karaca, 2003: North Atlantic Oscillation: Comparison of Two Different Years by Regional Climate Model. Sırrı Erinç Symposium 2003, Istanbul University, Istanbul
- 11) Demirel, M.C., E. Kahya and G. Karaçuha, 2004: Separation of Seasonal Streamflow across Turkey by Cluster Analysis. First National Dams and Hydro-electrical Power Plants, State Water Works General Directorate, Ankara, Turkey
- 12) Kalaycı, S., E. Kahya and G. Karaçuha, 2004: Streamflow Variability in Turkey. First National Dams and Hydro-electrical Power Plants, State Water Works General Directorate, Ankara, Turkey.
- 13) Demirel, M.C., E. Kahya, T. Kindap and M. Karaca, 2005: Classification of Turkish Precipitation and Streamflow Data by Cluster Analysis, Second National Water Engineering Symposium, DSİ, Gümüldür-İzmir, 21-24 September, 2005.
- 14) Kahya, E. and A.İ. Martı, 2007: The Relationships of Turkish Streamflow Data with Southern Oscillation. III. National Water Engineering Symposium, DSİ, Gümüldür-İzmir, 10-14 September, 2007.
- 15) Partal T., H.K Cıgızoğlu and Kahya E., 2007: Application of NNW and Wavelet Analysis Together on Precipitation Forecast, V. National Hydrology Congress, 5-7 September, 2007, METU/Ankara.
- 16) Can, İ., C. Yerdelen and E. Kahya, 2008: Prediction of Missing Streamflow Data in Çoruh Basin Using ANN Method. Flood, Avalanche and River Bed Protection Conference, DSI, 07-08 August 2008, Trabzon
- 17) Güney, Ş.C., İ. Akyüz, F.M. Yılmaz and E. Kahya, 2008: Searching North Atlantic Oscillation Signals on Hydrologic Data in East Black Sea and Çoruh Basins. Flood, Avalanche and River Bed Protection Conference. DSI, 07-08 August 2008, Trabzon
- 18) Yılmaz, F.M., İ. Akyüz, Ş.C. Güney, M.E. Savcı and E. Kahya, 2008: Influences of North Atlantic Oscillation on Flow and Precipitation Data in Konya Basin. Groundwater and Drought Conference, DSI, 11-12 September 2008, Konya
- 19) Güney, Ş.C., İ. Akyüz, F.M. Yılmaz and E. Kahya, 2008: Determination of North Atlantic Oscillation Influences on Hydrologic Data in Kızılırmak Basin. Water and Energy Conference, DSI, 10-12 September 2008, Artvin

**International:**

- 1) Dracup, J. A. and E. Kahya, 1992: Long-Range Streamflow Forecasting Based on ENSO. Proceedings of 16<sup>th</sup> Annual Climate Diagnostics Workshop, U.S. Government Printing Office, Washington, D.C., USA
- 2) Kahya, E. and J. A. Dracup, 1993: The Relationships Between ENSO Events and Streamflows in California, in “The World at Risk: Natural Hazards and Climate Change”, edited by R. Bras, pp: 86 – 96, *American Institute of Physics (AIP) Conference Proceedings 277*, New York.
- 3) Kahya E and J. A. Dracup, 1993: Streamflow and La Nina Event Relationship in the ENSO - Streamflow Core Areas. Proceedings of 9<sup>th</sup> Annual Pacific Climate (PACLIM) Workshop, Asilomar, CA, USA
- 4) Büyükkaracıoğlu N. and E. Kahya, 1997: The Dependency Analysis of Annual Peak Flows of Streams in Konya Basin. Proceedings of International Conference on Water Problems in Mediterranean Countries, Nicosia, North Cyprus
- 5) Karabörk Ç. and E. Kahya 1997: Autoregressive Modeling of Annual and Monthly Streamflows. Proceedings of International Conference on Water Problems in Mediterranean Countries, Nicosia, North Cyprus
- 6) Kahya, E., S. Kalaycı and Y. Burdurlu, 1998: Analysis of Trends in the Water Quality Parameters of Gediz Basin. Proceedings of 1<sup>st</sup> International Workshop on “Environmental Quality and Environmental Engineering in the Middle East Region”, Konya, Turkey
- 7) Karabörk, M.Ç. and E. Kahya, 2002: The Teleconnections between Turkish Streamflows and Large-scale Atmospheric Circulation Patterns. The Fifth Congress on Advances in Civil Engineering (ACE 2002), Istanbul Technical University, Istanbul, Turkey
- 8) Martı, A.I. and E. Kahya, 2002: The Analysis of the Southern Oscillation Signals in Turkish Streamflow. The Fifth Congress on Advances in Civil Engineering (ACE 2002), Istanbul Technical University, Istanbul
- 9) Kalaycı, S, E. Kahya and S. Kabdaşlı, 2002: Variability of Akşehir and Eber Lake Levels in Turkey. Third International Symposium on AGRO-ENVIRON 2002, Cairo, Egypt
- 10) Kahya, E., Ç. Karabörk and M. Karaca, 2002: The Influences of Large-scale Atmospheric Circulation Patterns on the Tigris-Euphrates Streamflows. Third International Symposium on AGRO-ENVIRON 2002, Cairo, Egypt
- 11) Kahya, E. and S. Kalaycı, 2002: Streamflow Variability in Turkey: Third International Symposium on AGRO-ENVIRON 2002, Cairo, Egypt
- 12) Kahya, E., A.I. Martı and M. Karaca, 2002: The Signature of the Southern Oscillation Extreme Events in Turkish Precipitation Patterns. Third International Symposium on AGRO-ENVIRON 2002, Cairo, Egypt
- 13) Karabörk, M.Ç., E. Kahya and M. Karaca, 2003: The Influences of Large-scale Atmospheric Oscillations on Turkish Precipitations. XXX IAHR Congress, 24-29 August 2003, Thessalonica, Greece
- 14) Cengiz, T., E. Kahya and M. Karaca, 2003: Trends and Annual Cycles in Turkish Lake Levels. XXX IAHR Congress, 24-29 August 2003, Thessalonica, Greece
- 15) Karaca, M., R.J. Nicholls and E. Kahya, 2003: Potential Coastal Implications of Accelerated Sea-level Rise for Turkey. XXX IAHR Congress, 24-29 August 2003, Thessalonica, Greece
- 16) Partal, T., E. Kahya, D. Şeker and S. Kabdaşlı, 2003: Precipitation Trends in the Aegean Region. XXX IAHR Congress, 24-29 August 2003, Thessalonica, Greece
- 17) Karabörk, M. Ç., A. Ü. Kömüştü and E. Kahya, 2004: The Quantification of the Relationships between El Nino and Precipitation Patterns in the Aegean Region. The Sixth International Congress on Advances in Civil Engineering (ACE 2004), Boğaziçi University, Istanbul, Turkey
- 18) Kalaycı, S., M. Büyükyıldız and E. Kahya, 2004: Are the Major Stream Flow Variables Decreasing in Susurluk Basin (Turkey). AGRO-ENVIRON 2004, Udine, Italy
- 19) Büyükyıldız , M., S. Kalaycı and E. Kahya, 2006: Trend Analysis of River Water Quality Data in Marmara Region, The Seventh Congress on Advances in Civil Engineering (ACE 2006), Yıldız Technical University, Istanbul, Turkey.

- 20) Kahya, E., M. C. Demirel and T.C. Piechota, 2007: Spatial grouping of annual streamflow patterns in Turkey. Hydrology Days 2007, 19-21 March, Colorado State University, CO, USA
- 21) Karabörk, M. Ç. and E. Kahya, 2007: The links between the categorized Southern Oscillation indicators and precipitation patterns over Turkey. Hydrology Days 2007, 19-21 March, Colorado State University, CO, USA
- 22) Demirel, M.C. and E. Kahya, 2007: Hydrological determination of hierarchical clustering scheme by using small experimental matrix. Hydrology Days 2007, 19-21 March, Colorado State University, CO, USA
- 23) Demirel, M.C., A.J. Mariano and E. Kahya, 2007: Performing k-means analysis to drought principal components of Turkish rivers. Hydrology Days 2007, 19-21 March, Colorado State University, CO, USA
- 24) Kahya, E. and A.İ. Martı, 2007: Do El Niño events modulate the statistical characteristics of Turkish streamflow? Hydrology Days 2007, 19-21 March, Colorado State University, CO, USA
- 25) Martı, A.İ. and E. Kahya, 2007: ENSO effects on mean temperature in Turkey. Hydrology Days 2007, 19-21 March, Colorado State University, CO, USA
- 26) Can, İ., C. Yerdelen and E. Kahya, 2007: Stochastic modeling of Karasu River (Turkey) using the methods of Artificial Neural Networks. Hydrology Days 2007, 19-21 March, Colorado State University, CO, USA
- 27) Şeşeoğulları, B., E. Eriş and E. Kahya, 2007: Trend analysis of sea levels along Turkish coasts. Hydrology Days 2007, 19-21 March, Colorado State University, CO, USA
- 28) Kahya, E., and T. Cengiz, 2007: North Atlantic Oscillation signals in the series of Beyşehir lake-levels (Turkey). Hydrology Days 2007, 19-21 March, Colorado State University, CO, USA
- 29) Kalaycı, S. and E. Kahya, 2007: Comparison of rotated and unrotated principal components of Turkish streamflow. Hydrology Days 2007, 19-21 March, Colorado State University, CO, USA
- 30) Kahya, E., S. Kalaycı, M.Ç. Karabörk, A.I. Martı and M.C. Demirel, 2007: General Hydroclimatologic Behaviors of Turkish Data: Diagnosis of Climate Change Pulse. Global Climate Change and Its Environmental Impacts: Regional and Local Dimensions, 18-20 October, Konya, Turkey.
- 31) Kalaycı, S., M. Büyükyıldız, E. Kahya and M. Alp, 2007: Changes in Different Observation Periods of River Quality Data in Marmara Basin. Global Climate Change and Its Environmental Impacts: Regional and Local Dimensions, 18-20 October, Konya, Turkey.
- 32) Büyükkaracığan, N. and E. Kahya, 2007: Comparison of Various Distributions Used in FFA Applied on Annual Peak Flows in Konya Basin. Global Climate Change and Its Environmental Impacts: Regional and Local Dimensions, 18-20 October, Konya, Turkey.
- 33) Demirel, M.C., F. Martins and E. Kahya, 2008: Impact of waste water discharges in Ria Formosa Coastal Lagoon (Portugal). Proceedings of the MWWD 2008 – 5th International Conference on Marine Waste Water Discharges and Coastal Environment, October 27-31, Cavtat-Croatia

### Abstracts:

- 1) Kahya, E and J. A. Dracup, 1992: The Analysis of United States Streamflow Fluctuations in Association to the Southern Oscillation. *Abstract* of the paper presented at American Geophysical Union (AGU) Meeting, San Francisco, CA.
- 2) Demirel, M. C., Karaca, M., Martins, F. and Kahya, E., 2006: A Comparison of Low Flow Clustering Methods: Streamflow Grouping. *Abstract* of the paper presented at the Meeting / Conference: EGU General Assembly 2006, April 2-7, 2006 Vienna, Austria, Geophysical Research Abstracts, Vol. 8, 01373, 2006.
- 3) Kahya, E. and M. C. Demirel, 2007: Evaluation of Multivariate Statistical Methods for Characterizing Annual Streamflow Regimes in Turkey. *Abstract* of the paper accepted to be presented at the Meeting / Conference: EGU General Assembly 2007, April 2-7, 2007 Vienna, Austria, Geophysical Research Abstracts.

4) Demirel, M. C., Karaca, M., Martins, F. and Kahya, E., 2007: The NAO Influences on Sapanca Lake-levels by Wavelet Analysis. *Abstract* of the paper accepted to be presented at the Meeting / Conference: EGU General Assembly 2007, April 2-7, 2006 Vienna, Austria, Geophysical Research Abstracts.

5) Kömüüşçü, A.Ü. and E. Kahya, 2007: Historical drought occurrences in Turkey: An analysis based on the standardized precipitation index (SPI). *Abstract* of the paper accepted to be presented at the Conference: Hydrology Days 2007, 19-21 March, Colorado State University, CO, USA.

## **Research Reports:**

### **As a Principal Investigator:**

- 1) Kahya, E. and M. Ç. Karabörk, 1998: Streamflow Stochastic Modeling. Selçuk University Research Grand, Project No. 96/155, (in Turkish)
- 2) Kahya, E., M. Karaca and T. Kındap, 2004: The Analysis of Turkish Streamflow and Precipitation Patterns in Relation to the Large-Scale Atmospheric Circulations. Istanbul Technical University Research Activities Secretariat (in Turkish)
- 3) Kahya, E. and T. Partal, 2004: Trend Analysis of Turkish Precipitation Patterns. Istanbul Technical University Research Activities Secretariat (in Turkish)
- 4) Kahya, E. and M.C. Demirel, 2004: Cluster Analysis of Turkish Streamflow. Istanbul Technical University Research Activities Secretariat (in Turkish)
- 5) Kahya, E. and T. Cengiz, 2005: Hydroclimatological Analysis of Lake Levels in Turkey. Istanbul Technical University Research Activities Secretariat (in Turkish)
- 6) Kahya, E. and others, 2006: Analysis of Changes in Characteristic Features and Distributions of Turkish Precipitation Time Series due to the Influences of El Nino and La Nina Events. TUBITAK (Turkish NSF) Research Project (in Turkish)
- 7) Kahya, E. and others, 2008-present: Cluster Analysis of Turkish Flow Data: Forecasting and Regionalization of Extreme Values with Trend Determination. TUBITAK (Turkish NSF) Research Project (in Turkish)

### **As an Investigator:**

- 1) Kahya, E. and J. A. Dracup, 1991: U.S Streamflow Patterns Associated with the El Nino/Southern Oscillation: The Potential for Long-Range Streamflow Forecasting. Research Project funded by Metropolitan Water District (MWD) of Southern California, Los Angeles, USA, Agreement No.2501.
- 2) Dracup, J. A. and E. Kahya, 1993: U.S Streamflow Patterns Associated with La Nina Events. Research Project funded by UC Water Resources Center, Los Angeles, USA, Grand No. W 787
- 3) C.H.K., E. Kahya, and et. al., 2005: Analysis of Rainfall-Runoff Relation by Neural Networks in Turkey. TUBITAK (Turkish NSF) Research Project, No: ICTAG 1841 (in Turkish).
- 4) Dalfes, N., Ü. Akkemik, M. Karaca, E. Kahya, and N. Dağdeviren, 2005: The Last 500 Years of Anatolian Climate History: Dendroclimatological Reconstructions and Space-Time Analyses. TUBITAK (Turkish NSF) Research Project, No: 102Y063 (in Turkish).
- 5) Kalaycı, S., A. Şahin and E. Kahya, 2006: Trend Analysis of Surface Water Quality Parameters of Rivers in Marmara Basin. TUBITAK (Turkish NSF) Research Project, No: YDABAG 104Y040 (in Turkish).
- 6) Karaca, M., E. Kahya and et. al., 2006-2008: Southern Anatolia Project – Regional Climate Change and Evaluation of Water Resources Potentials. DPT Project, No: 90187, continued (in Turkish).
- 7) Can, İ., E. Kahya and C. Yerdelen, 2007: Stochastic Modeling of River Flows in Çoruh Basin: A Simple Hydroclimatologic Analysis. TUBITAK (Turkish NSF) Research Project, No: ÇAYDAG, continued (in Turkish)

**Technical Reports:**

- 1) **Principal Investigator:** Kahya, E, 2003: Technical Report for Breakwater Construction on the Outlet of Büyükyalı Stream (Idealtepe/Istanbul). ITU R&D Project No: 106 (in Turkish)
- 2) **Principal Investigator:** Kahya, E, 2003: Technical Report for Necessity for the Breakwater Construction on the Outlet of Kaynarca Stream (Pendik/Istanbul). ITU-Water and Sea Sciences Technology Center (in Turkish)
- 3) **Principal Investigator:** Kahya, E and S. Kabdaşlı, 2003: Technical Report for Breakwater Construction on the Fill Side of the Outlet of Kurbağalı Stream (Moda/Istanbul). ITU-Water and Sea Sciences Technology Center (in Turkish)
- 4) **Principal Investigator:** Kahya, E, M. Karaca and S. Kabdaşlı, 2004: Technical Report for Breakwater Construction on the Outlet of Kaynarca Stream (Pendik/Istanbul). ITU-Water and Sea Sciences Technology Center (in Turkish)

**WEB SITES CONTAINING SOME OF THE ABOVE PUBLICATIONS**

- 1) <http://www.coaps.fsu.edu/lib/elinobib/>  
[Center for Ocean-Atmospheric Prediction Studies (COAPS), USA]
- 2) <http://leardo.lib.uwm.edu/cgp/hold/may/regsect3.html#Turkey>  
[Current Geographical Publications Vol. LXVII -- May 2004 -- No. 5, Section Two: Regional by American Geographical Society Collection of the University of Wisconsin-Milwaukee]
- 3) <http://www.nwri-usa.org/asp/sp.asp?main=m4&sub=s1&id=4&sub2=3>  
[National Water Research Institute (NWRI-USA)]
- 4) Research Report -**Section 3.3.2**- (2000) by J. Rolf Olsen and Eugene Z. Stakhiv, "Flood Hydroclimatology in the Upper Mississippi and Missouri River Basins," *Planning and Policy Studies Division Institute for Water Resources, U.S. Army Corps of Engineers, Alexandria, VA.*

**SOME INTERNATIONAL RESEARCH COLLABORATIONS (Among Others)**

- 1) John A. DRACUP, Ph.D. (Professor)  
University of California, Berkeley  
Civil Engineering Department  
533 Davis Hall, #1710  
Berkeley, CA 94720 – 1710 / USA  
Phone # (510) 643-4306 Fax: (510) 643-4307  
E-mail: dracup@ce.berkeley.edu
- 2) O. Anwar BEG, Ph.D. (Associate Professor)  
Castle College  
Civil Engineering Program  
Hydromechanics Research  
R-Block, Sheffield, S2 2RL, UK  
Work Tel: (004) 114 260 2031  
E-mail 1: osman.beg@sheffcol.ac.uk  
E-mail 2: docoanwarbeg@hotmail.co.uk
- 3) Thomas C. PIECHOTA, Ph.D., P.E. (Associate Professor)  
University of Nevada, Las Vegas  
Department of Civil and Environmental Engineering

4505 Maryland Parkway, Box 454015  
Las Vegas, NV 89054-4105  
Work Tel: 702-895-4412 Fax: 702-895-3936  
E-mail: piechota@ce.unlv.edu

**4) I V Murali KRISHNA, Ph.D. (Professor)**

Head of Centre for Atmospheric Sciences and Weather Modification Technologies  
JNT University, IST Building - IV Floor, Kukatpally  
HYDERABAD 500085, AP, INDIA  
Phone / Fax 91 (040) 2305 3105  
E-mail 1: iyyanki@icorg.org  
E-mail 2: ivm@ieee.org

**5) Diego RIVERA, Ph.D. (Professor)**

University of Concepcion  
Department of Water Resources  
Vicente Méndez 595, Chillán, CHILE  
E-mail: dirivera@udec.cl