Basil Papadopoulos

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Personal Information

- Date of Birth: 9/9/1955
- Militairy Service: September of 1977 enlistment to the Artillery branch of the Greek Armed Forces with the rank of Reserve Officer with the specialty of Meteorologist-Topographer. January of 1980 discharge with the rank of Reserve Second Lieutenant.

❖ **Dean** of the Polytechnic School of the Democritus University of Thrace
`http://www.eng.duth.gr/deanery/`

❖ **Director** of the Study Program 2021-2022 of the Postgraduate Study Program of H.O.U. (Hellenic Open University) ≪Postgraduate studies at Mathematics≫

❖ **Coordinator** of the Study Program of the Postgraduate Study Program of H.O.U. (Hellenic Open University) ≪Postgraduate studies at Mathematics≫
`https://www.eap.gr/education/postgraduate/annual/postgraduate-studies-in-mathematics/`

❖ The Democritus University of Thrace awarded to him the **OUTSTANDING TEACHING AWARD** για το 2021
`https://civil.duth.gr/2022/02/10/`

Employment

Professor of the section Mathematics, Informatics and General Course of the Civil Engineering Department of the Polytechnic School of the Democritus University of Thrace

Subjects

✍ Analysis
✍ Topology
✍ Fuzzy Logic

Teaching Work

Undergraduate Courses

◆ **Civil Engineering Department of D.U.TH.**
Since 1985 tought independently or co-teached the following courses:
- Advanced Mathematics I,
- Mathematics for Engineers I,
- Mathematics for Engineers II,
- Advanced Mathematics II,
- Propabilities and Statistics,
- Transportation Statistics,

- Differential Equations,
- Applications of Fuzzy Logic to Civil Engineering,
- Mathematics Analysis,
- Linear Algebra,
- From 1980 till 1985 tought excercises in the courses, Advanced Mathematics I and Advanced Mathematics II

◆ **Department of Environmental Engineering D.U.TH.**
- Propabilities and Statistics,
- Introduction to Fuzzy Logic

◆ **Paedagogical Department D.U.TH.**
- Advanced Mathematics I,
- Propabilities and Statistics

◆ **Department of Architectural Engineering D.U.TH.**
- Advanced Mathematics I,
- Advanced Mathematics II,
- Propabilities and Statistics,
- Mathematics

Postgraduate Courses

◆ **Hellenic Open Univercity (H.O.U.)**
From 2006 till 2016 tought as Associate Teaching Staff (A.T.S.) of the courses:
- MΣM50 Basic Theories & Methods in Mathematics,
- MΣM60 Mathematical Standards in the Natural Sciences

Since 2016 tought as Associate Teaching Staff (A.T.S.) of the courses MΣM50, MΣM50-70 and was the **Coordinator**

◆ **Inter-university Postgraduate Program ≪Organization and Management of Technical Systems≫,D.U.TH.**
- Modelization and Systems Analysis,
- Methods of improving the management of water resources,
- Management of Systems's quality

◆ **Postgraduate Program ≪New materials and technologies in the design of reinforced concrete projects≫, D.U.TH.**
- Applied Mathematics (Partialy Differential Equations - Statistics) for Engineers

◆ **Postgraduate Program ≪Hydraulic Engineering≫, D.U.TH.**
- Hybrid Models in Hydraulic Engineering

◆ **Postgraduate Programm ≪Innovation in Technology and Entrepreneurship≫, Eastern Macedonia and Thrace Institute of Technology (EMaTh.Tech) by the Department of Electrical Engineering**
- Artificial intelligence

◆ **Inter-university Postgraduate Program ≪Applied Mathematics≫, (Civil Engineering - Electrical Engineering - Environmental Engineering) D.U.TH.**
From 2015 till 2021 Postgraduate Program Director
Since 2015 co-teaching of the courses:
- Applied Functional Analysis,
- Fuzzy Logic and Applications,
- Special Chapters of Differential Equations and Difference Equations,
- Special Chapters of Linear Algebra

◆ **Predoctoral Study Program, D.U.TH.**
Tought the courses:
- Functional Analysis,
- Fractional Geometry,
- Fuzzy Logic

Rest of Teaching Work

- **Regional Training Centers (former Training Schools for Officers of Secondary Education)**
  Tought the courses:
  - Elements of General Topology,
  - Elements of Measure Theory,
  - Probabilities and Statistics,
  - Teaching of Mathematical Analysis
- **Regional Training Centers (former Training Schools for Officers of Secondary Education)**
  Tought the courses:
  - Algebra for Graduate School Candidates,
  - Algebra for Graduate School Candidates,
  - Analytical Geometry for Graduate School candidates

Books - Writings

Books

- **Fuzzy Logic with Applications in Engineering Sciences**
  Ch. Tzimopoulos, B. Papadopoulos, Ziti Publications, 2013, (627 pages), (ISBN 978-9604563852)
- **Fuzzy Sets**
  B. Papadopoulos, Botzoris George, "sofia" Publications, 2015, (432 Pages), (ISBN 978-960-6706-86-8)
- **Probabilities and Statistics for Engineers**
  N. Mylonas, B. Papadopoulos, "TZIOLA" Publications, 2016, (784 Pages), (ISBN 978-960-418-561-0)
- **Linear Algebra and Analytic Geometry**
  N. Mylonas, B. Papadopoulos, "TZIOLA" Publications, 2017, (768 Pages), (ISBN 978-960-418-709-6)

Writings

- **Introduction to Fuzzy Logic**
- **Mathematics for Engineers**
- **Probabilities (Excercises and Solutions)**

Awards - International Awards

1973 He was the only successful candidate for the I.K.Y. (State Scholarships Foundation) scholarship among 8 candidates

2010 He was nominated by the postgraduate students of the H.O.U. to be given the Xanthopoulos award

2009 Appointed Head of the Polytechnic School of D.U.TH. for the composition and preparation of a group of students that will take part in the annual Mathematical Olympiad SEEMOUS (South-Eastern European Mathematical Olympiad for University Students) for the students of Polytechnics, Mathematics Departments and Informatics Departments, in the 7 years (2009-2015) he won seventeen (17) medals.

2013 In the external evaluation of the Civil Engineering Department of D.U.TH. the external evaluators reserved special mention and emphasis on the above action. To be more specific, they wrote (page 14 of evaluation text): ≪Department faculty systematically mentors students to participate in prestigious international competitions in mathematics and students have won many medals in those competitions≫.

2016 He was included in the Excellences of the Ministry of Education for the education he provided to the students of the Polytechnic School in **SEEMOUS**

Supervision of Doctoral Dissertations

15 PhD Theses were completed and presented under his supervision. The doctorates he supervised are shown in the Mathematics Genealogy Project. It is a service of the North Dakota State University Department of Mathematics,

in partnership with the American Mathematical Society.
https://www.mathgenealogy.org/id.php?id=180728&fChrono=1

The following Doctoral Theses are being prepared under his supervision

- ✔ Gkountakou Fani, ≪Contribution to the investigation of innovative techniques of fuzzy logic in the study of structural elements and constructions≫
- ✔ Mpety Saridou, 8/12/16 ≪Machine Learning with Applications in Cyber Security≫
- ✔ Maria Rapti, 02/09/2019 ≪Study and construction of fuzzy Connectives and Implications and applications in Engineering subjects≫
- ✔ Giakoumakis Stylianos, 23/1/2020 ≪The (copulas) connectives in probability theory, in fuzzy logic and their applications≫

Scientific collaborations with Universities Abroad

1991	During the period 17-29 August 1991, he was chosen to visit Prague, Czechoslovakia, as part of bilateral educational exchanges, where he collaborated with scientists of his field
1992	During the period November - December 1992 he was invited by the Steklov Mathematical Institute of the Soviet Academy of Sciences. He collaborated with the scientists of the Academy in Moscow and St. Petersburg, gave a series of lectures and established collaboration on issues of his field. Also, as part of his research in the field of Civil Engineering, he came into contact with Academician Alexander Samarskii, Director of the Institute of Mathematical Modeling of the Soviet Academy of Sciences, in order to be informed about the latest developments in the field of Mathematical simulations (especially in the simulation of non- -Physical systems)
1992 - 2020	He maintained since 1992 a permanent collaboration with the Steklov Mathematical Institute of the Soviet Academy of Sciences. To be more specific, he collaborated with the Director of the Steklov Mathematical Institute of the Soviet Academy of Sciences I. Ivanov
1998	He was invited and attended the ≪Working Group 1&2, Meeting of COST-Action 15 on Many-Valued Logics for Computer Science Applications≫ held in Vienna (27-28 November 1998), where he presented the paper ≪Generalizing topology via Chu spaces≫
2007	He was officially invited by the Technical University of Bucharest in 2007 to the Conference: ≪International Conference Trends and Challenges in Applied Mathematics (ICTCAM 2007)≫, where he presented the paper ≪fuzzy estimators≫ (Basil K. Papadopoulos and Dimitris S. Sfiris, Construction of fuzzy estimators, International Conference Trends and Challenges in Applied Mathematics (ICTCAM 2007), June 20-23, Bucharest, Romania, pages 76-81

Scientific collaborations with Universities of the Interior

1983-1986	During the period 1983-1986 in a series of seminars at the Analysis Sector of the Mathematical Department of A.U.Th. he presented results of his PhD thesis as well as other results
1991-1995	In the period 1991-1995, he had conducted seminars, at the Topology Seminar of the Mathematics Department of the University of Patras, on topics of Functional Topological Spaces
1998-1999	Within the framework of the Theoretical Informatics Seminar of the Mathematics Department of A.U.Th., (period 1995-1998), he gave a series of lectures (postgraduate and research level) in the field of Fuzzy Logic. He also gave a series of lectures in Categorical Models of Linear Logic (Chu spaces) during the second semester of the academic year 1998-1999

1999-2007 He was invited by the Departments of Economic Sciences of the University of Crete and the University of Ioannina, by the Hydraulics Sector (Department of Surveyors) of Master's Program of the Technical University of A.U.Th., and gave lectures in the field of Fuzzy Logic

Participation in Electoral Bodies

He participated in a number of electoral bodies, as President, as a member of a three-member committee and as an elector, for the election of D.E.P. (Teaching Research Staff) members of all levels, in universities throughout Greece

Participation in International Workshop Conferences

1985 Topology and its Applications, Dubrovnik Yugoslavia (1985), with paper

1986 3rd National Meeting on Topology, Trieste Italy (1986), with paper

1986 6th Prague Topological Symposium on General Topology and its Relation to Modern Analysis and Algebra, Prague Czechoslovakia (1986), with paper

1991 7th Prague Topological Symposium on General Topology and its Relation to Modern Analysis and Algebra, Prague Czechoslovakia (1991)

1991 Short Conference on Uniform Mathematics, Bern Switzerland (1991), with paper

1998 Current Trends And Developments In Fuzzy Logic, Thessaloniki, Greece (1998), with paper

1998 Working Group 1& 2, Meeting of COST-Action 15 on Many-Valued Logics for Computer Science Applications. Wienna, 7-28 November 1998. Official guest and presented the paper titled ≪Generalizing topoloy via Chu spaces≫

2007 International Conference "Trends and Challenges in Applied Mathematics", June 20-23, 2007, Bucharest, Romania. Official guest where with Plenary Lecture he presented the paper "Construction of fuzzy estimators" in collaboration with Mr. Dimitris Sfyris

2012 He was the co-organizer (as Department of Civil Engineering D.U.Th.) and member of the Scientific Committee of the 2nd Summer School on Operator Theory (July 23-28, 2012, Karlovasi, Samos), where he presented the lecture on: "Topological Dynamical Systems (Basic Notions)" and a paper with this title was published

Participation in International Conferences

1990 - 2010 He participated in all Conferences of Mathematical Analysis, from the 1st in 1990 in Thessaloniki until the last in 2010 in Ioannina. In all the said Conferences he was in the Scientific Committee, while in most of them he participated with extended summaries in the Proceedings

1998 At the 15th Panhellenic Conference on Mathematics Education (Chios 13-15 November 1998), he was officially invited and participated in the Round Table on the topic: "Analytical Programs of Mathematics and the needs of Higher Education". Also at this Conference he presented the paper (B. Papadopoulos & A. Syropoulos) "A route from classical Logic to modern Logics", which has been published in the Proceedings of this Conference after a review. He participated in several Conferences of the Hellenic Mathematical Society and, upon invitation, gave a number of lectures, on topics related to his research interests and on topics related to the teaching of mathematics

Participation in the Council for the Publication of Scientific Journals - Editorial Board

- Symmetry (mdpi), `https://www.mdpi.com/journal/symmetry/editors?search=Basil+Papadopoulos`

- Journal of Mathematics (Hindwai), https://www.hindawi.com/journals/jmath/editors/#editorial-board
- Journal of Statistics and Mathematical Engineering
- Annals of Fuzzy Sets, Fuzzy Logic and Fuzzy Systems (Mili Publications), https://www.mililink.com/journals_eb.php?id=63
- Research & Reviews: Discrete Mathematical Structures http://computers.stmjournals.com/index.php?journal=RRDMS&page=about&op=editorialTeam
- Annals of Biostatistics & Biometric Applications - ABBA, http://irispublishers.com/abba/editorialboard.php
- Mathematics (mdpi), https://www.mdpi.com/journal/mathematics/editors
- International Journal of Applications of Fuzzy Sets and Artificial Intelligence (IJAFSAI), ISSN 2241-1240,
- Contributions to Mathematics, https://shahindp.com/journals/cm/
- He was also the Editor of the "Bulletin of the Greek Mathematical Society", the only research mathematical Journal in Greece (published by the Hellenic Mathematical Society). This journal is included in "Zentralblatt Fur Mathematik" as well as in "American Mathematical Reviews"

Research programs

- He participated in 26 Research Programs as scientific manager https://utopia.duth.gr/papadob/newfiles/epistimonika_upefthinos.pdf
- He was appointed Scientific Officer in the Lifelong Learning Study Program https://utopia.duth.gr/papadob/newfiles/kededim.pdf

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