

## **Prof. Dr. Eng. Dimiter Tzenov Dimitrov**



- Date of birth: 24.03.1948
- Place of birth: Botevgrad, Bulgaria
- Nationality: Bulgarian
- Sex: male

### **Education**

1. Professional Secondary school, specialization: Radioelectronics- 1967, Botevgrad, Bulgaria
2. Technical University of Sofia, M. Sc. on Radiocommunications, 1972
3. Technical University of Sofia, M. Sc. on Applied Mathematics, 1973
4. Technical University of Sofia, Ph.D. on Communication technique, 1976  
Title of Dissertation "Array antennas with variable parameters"

### **Professional experience:**

1. Scientific assistant in the Faculty of Telecommunication of Technical University- Sofia 1977-1978
2. Lecturer in the Faculty of Telecommunication of Technical University- Sofia 1978-1987.
3. Assoc.Prof. in the Faculty of Telecommunication of Technical University- Sofia 1987-2008
4. Head of Laboratory "Communication systems" in the Faculty of Telecommunication, 1988-1990
5. Head of Division "Signals and Systems" in the Faculty of Telecommunication of Technical University- Sofia 2005-2016
6. Vice Dean of the Faculty of Telecommunication of Technical University- Sofia 2003-2011
7. Head of Division "Electronic systems in medicine" in the Department of post graduated education of Technical University-Sofia, 2006-2012
8. Full Prof. in the Faculty of Telecommunication of Technical University-Sofia since 2008
9. Head of Laboratory "Communication systems in medicine" in the Faculty of Telecommunication since 2005

### **Books on Engineering:**

1. Communication Systems in medicine
2. Communication Systems in medicine (hand book for practical exercises)
3. Systems for influence of electromagnetic field on the human body in medical therapy
4. Signals and systems
5. Information technologies in medicine

**Supervisor** of 11 Ph.D. students engineering dissertations

**Engineering and Scientific research:**

1. Patents: 14 in Bulgaria in the area of medical systems and methods for treatment of signals. Two of them-in UK, Germany, Japan and Hungary
2. Papers: more than 120 papers in different journals and scientific conferences in Europe
3. Coordinator of more than 30 research projects in Bulgaria
4. Participation in European projects
  - a. Coordinator of TEMPUS project IMG-94-BG-2137.
  - b. Coordinator of the ERASMUS project №66389-IC-2000-1-BG-ERASMUS-PROG-2, "Communication System for Treatment and Transfer of Medical Information".
  - c. Participant in the ERASMUS Project Nr. 10063-CP-1-2000-1-PT-ERASMUS-ETNE"Thematic Harmonization in Electrical and Information Engineering in Europe" 2000-2005.
  - d. Participant in ERASMUS Project Nr. 225997-CP-1-2005-1-FR-ERASMUS-TNPP"EIE-Surveyor:REFERENCE POINT FOR ELECTRICAL AND INFORMATION ENGINEERING IN EUROPE, 2005-2008.

**International activities:**

1. Full Member (Academician) of the Academy of Engineering Sciences of Ukraine ( Diploma Registered No.601 / April 12th 1995, Record No.8).
2. Official member of the Commission "Electromagnetics in Biology & Medicine" of INTERNATIONAL UNION OF RADIO SCIENCES –URSI and Chairman of the Bulgarian branch of Commission"Electromagnetics in Biology & Medicine".
3. Member of the Council of European Association for Engineering Education on Informatics and Electrotechnics( EAEEIE).
4. Member of Edition Board (responsible for application of electromagnetic field in biology and medicine) of Scientific Journal "Applied Electromagnetism" of the Black sea Region, edited in Athens, Greece.
5. Member of Edition Board of Scientific Journal "Electronics and Electrical Engineering", Lithuania, Latvia, Estonia.
6. Chairman of the Organizing Committee and member of the International Program Committee of 15th European Annual Conference of EAEEIE on Innovation in Education for Electrical and Information Engineering, May, 27-29, 2004, Sofia, Bulgaria.
7. Chairman of the Organizing Committee and member of the International Program Committee of 5th European Conference "Computer Aided Engineering Education, CAEE'99" September 22-24, 1999, Sofia, Bulgaria.
8. General Chairman of International Program Committee of 51st International Scientific Conference on Information, Communication and Energy Systems and Tehnologies, ICEST'06, 29th June- 01st July, 2006, Sofia, Bulgaria.
9. Member of Scientific Committee of the World Conference on Telemedicine, Toulouse, France, March 22-24, 2000.
10. Member of International Program Committee of 48th International Scientific Conference on Information, Communication and Energy Systems and Tehnologies, ICEST'03, October, 16-18, 2003, Sofia, Bulgaria.
11. Chairman of the International Scientific Committee of European Conference "Computer Simulation in Information and Communication Engineering, CSICE'05, October 20-22, 2005, Sofia, Bulgaria.
12. Member of International Program Committee of 2nd European Conference "Computer Aided Engineering Education, CAEE'93" September 22-24, 1993, Bucharest.

13. Member of International Program Committee of 17th EAEEIE Annual Conference on Innovation in Education for Electrical and Information Engineering, June, 1-3, 2006, University of Craiova, Romania.
14. Chairman or Vice Chairman of International Program Committee the Regular International Conference on Communications, Electromagnetics and Medical Applications since 2006.
15. Member of International Program Committee of 4th European Conference "Computer Aided Engineering Education CAEE'97, September 13-15, 1997, Technical University of Krakow, Poland.
16. Member of International Program Committee of 3rd European Conference Computer Aided Engineering Education CAEE'95", Bratislava, September 1995.
17. Vice Chairman of International Program Committee of 52nd International Scientific Conference on Information, Communication and Energy Systems and Technologies, ICESS'07, June, 24-27, 2007, Ohrid, FYROM.
18. Contact person in ERASMUS Bilateral Agreements with :
  - a. Technical University -Ilmenau, Germany.
  - b. University "Sophia Antipolis", Nice, France.
  - c. University of Technology, Kaunas, Lithuania.
  - d. FH- Vorarlberg, Austria.
  - e. Technical University of Barcelona, Spain.
  - f. Technical University of Porto, Portugal.
  - g. University "Henri Poincare" , Nancy, France.
  - h. Technical University of Upsala, Sweden.
  - i. Nationale Technical University - Athens , Greece.
  - j. Technical University of Bologna,Italy
  - k. Technical University of Copenhagen, Denmark
  - l. University of Siegen, Germany
19. Contact person for two sides contract for scientific cooperation with the University of Harbin-China.
20. Guest Professor (2005/2006 and 2006/2007) on "Medical Information Systems" in Fachhochschule Vorarlberg, Austria
21. Guest Professor (since 2002/2003 to 2005/2006) on "Medical Information Systems" in Technical University of Ilmenau, Germany.
22. Guest Professor (since 2001/2002 to 2004/2005) on "Medical Information Systems" in University "Sophia Antipolis" –Nice, France.
23. Guest Professor (2001/2002) on "Medical Information Systems" in Technical University of Porto, Portugal.

#### **Publications in the last ten (10) years:**

1. D.Tz. Dimitrov, Computer Simulation of Space Configuration of Low Frequency Magnetic Field in Magnetotherapy, p.28-32,Journal " Electronics and Electrical Engineering",Lithuania, ISSN 1392-9631, 2005, -No.3(59).
2. D.Tz. Dimitrov, Improving the Performance of Program Package for 3D Simulation of Low Frequency Magnetic Field in Medical Therapy, p.69-72, Journal "Electronics and Electrical Engineering",Lithuania, ISSN 1392-9631, 2007, No.1(73).
3. D. Dimitrov, An Investigation on Influence of Electromagnetic Field of GSM Apparatuses on the Human Body, p.141-147, The Mediterranean Journal of Electronics and Communication, Vol.2, No.4, 2006.
4. D.Dimitrov, Visualization of a Low Frequency Magnetic Field, generated by Girdle Coil in Magnetotherapy, p.57-60,Journal"Electronics and Electrical Engineering",Lithuania, ISSN 1392-1215, 2007, -No.6(78).
5. D. Dimitrov, System for Online Conference Discussion on Medical Images and Data, University of Harbin, China,2011.
6. D. Dimitrov, An investigation on propagation and absorption of electromagnetic signals through biological media, Journal of Applied Electromagnetism, Greece, 2008.
7. D. Dimitrov, Experimental Investigation on Space Configuration of Low Frequency Magnetic Field, Generated by Girdle Coil in Magnetotherapy Journal " Electronics and Electrical Engineering",Lithuania, ISSN 1392-9631, No.2(66), 2012.

8. D. Dimitrov, Wireless module for distance measurement of patient's temperature in hospitals, Journal " Electronics and Electrical Engineering", Litvania, ISSN 1392-9631, No.4(65), 2011.
9. Д. Ц. Димитров, Изследване на полето на вектора "токова плътност" при нискочестотни интерферентни токове, стр.28-33 "Електроника и Електротехника", No.7-8, 2006.
10. Д. Ц. Димитров, Изследване на пространствената конфигурация на нискочестотно магнитно поле в магнитотерапията. стр.38-43. "Електроника и Електротехника", No.9-10, 2005.
11. Д. Димитров, Телемедицина и съвременните тенденции в оборудването на здравните центрове, стр.48-52,сп.СЮ, кн1,година II, 2006.
12. V. Hristov, D. Dimitrov, An Approach for Speeding up the Transmission of Medical Diagnostic Signals and Data in the Telemedical Systems, p.115-122, Proceedings of The Technical University-Sofia, Volume 53, 2004.
13. V. Hristov, D. Dimitrov, Distance Learning System for Low Frequency Magnetic Field and Beatdown Problem, p.77-84, Proceedings of The Technical University-Sofia, Volume 52, 2003.
14. D. Dimitrov, Y.Velchev, Distance Analysis of ECG, p.69-75, Proceedings of The Technical University-Sofia, Volume 52, 2003.
15. В.Христов, Д.Димитров, Повишаване на коефициента на справедливост при клетъчни мрежи за пренос на медицински сигнали и данни, Годишник на Техническия Университет-София, том 57/2007.
16. М. Паралиев, Д.Димитров, Генериране на асиметрични периодични сигнали на базата на свързани резонансни кръгове, Годишник на Техническия Университет-София, том 57/2007.
17. D.C. Dimitrov, Y. Velchev, Communication Protocol for Medical Mobile Network,p.55-56, Proceedings of 48th IWK, TU-Ilemanu, Germany, 22-25 September, 2003.
18. D. Dimitrov, Investigation on the Interference of Low Frequency Currents in Medical Therapy, p.169-170, Proceedings of 51st , Internationales Wissenschaftliches Kolloquium, Technische Universitat , Ilmenau, Germany, September 11-15, 2006.
19. D. Dimitrov, A. Dimitrov, Computer Simulation of Low Frequency Magnetic Field, p.171-175, Proceedings of 17th EAEEIE Annual Conference on Innovation in Education for Electrical and Information Engineering, June, 1-3, 2006, University of Craiova, Romania.
20. V.Georgieva, D. Dimitrov, p.17-18, Some Aspects of Restoration of Biomedical Signals with Noise Spectrum, p.17-18 , Volume 1, Proceedings of 47th International Csientific Conference on Information, Communication and Energy Systems and Tehnologies, ICEST'02, October,1-4, 2002, Nis, Serbia.
21. D.Dimitrov, V. Georgieva, Computer Processing of 1-D Medical Signals with Incomplete Spectrum, p.648-649,Volume 2, Proceedings of 47th International Csientific Conference on Information, Communication and Energy Systems and Tehnologies, ICEST'02, October,1-4, 2002, Nis, Serbia.
22. V.Georgieva, S.Lishkov, D. Dimitrov, Spectrum Signal Analysis in MATLAB Environment, p.738-740, Volume 2, Proceedings of 50th International Csientific Conference on Information, Communication and Energy Systems and Tehnologies, ICEST'05, June 29-July 1, 2005, Nis, Serbia.
23. V.Georgieva, D. Dimitrov, S.Lishkov, Correlation Signal Analysis in MATLAB Environment, p.741-742, Volume 2, Proceedings of 50th International Csientific Conference on Information, Communication and Energy Systems and Tehnologies, ICEST'05, June 29-July 1, 2005, Nis, Serbia.
24. V.Georgieva, S.Lishkov, D. Dimitrov, V. Ivanova, Studing on Digital Filters in MATLAB Environment, p.735-737, Volume 2, Proceedings of 50th International Csientific Conference on Information, Communication and Energy Systems and Tehnologies, ICEST'05, June 29-July 1, 2005, Nis, Serbia.
25. D.Dimitrov, An Investigation on Signals for Magnetic Stimulation of Neural Tissue,p.455-457,Volume 2, ICEST2007 , June 24-27, Ohrid, FYROM.
26. D. Dimitrov, An Investigation on Signals in Magnetocardiography , p.459-462,Volume, ICEST2007 , June 24-27, Ohrid, FYROM.
27. D.Dimitrov, V.Todorova, Investigation on the low-frequency magnetic field generated by cylical coil, 18th Annual EAEEIE Conference, July 2-4, 2007, Czech Technical University, Prague (in the process of edition), July 2-4, 2007.
28. V.Georgieva, D. Dimitrov, Parametric Optimization in Noise Reduction of Medical Diagnostic Signals,p.507-509, Proceedings of 48th International Csientific Conference on Information,

- Communication and Energy Systems and Tehnologies, ICEST'03, October,16-18, 2003, Sofia, Bulgaria.
29. D.C. Dimitrov, Diana Vasileva, One Chanel ECG System,p.510-512 , Proceedings of 48th International Csientific Conference on Information, Communication and Energy Systems and Tehnologies, ICEST'03, October,16-18, 2003, Sofia, Bulgaria.
  30. D. Dimitrov, An Investigation on the experimental measurement of conduction velocity of the nerve signals in the arm, p.428-430, Proceedings of XLI International Scientific Conference on Information, Communication and Energy Systems and Tehnologies, ICEST'06, 29th June- 01st July, 2006, Sofia, Bulgaria.
  31. D. Dimitrov, An Electrical Model of Propagation of Signals in the Nerve Axon, p.431-433, Proceedings of XLI International Csientific Conference on Information, Communication and Energy Systems and Tehnologies, ICEST'06, 29th June- 01st July, 2006, Sofia, Bulgaria.
  32. V.Georgieva, D. Dimitrov, One Application of Wavelet Transformation for Diagnostic Signals in Telemedicine, p.18-21, Proceedings of 15th European Annual Conference of EAEEIE on Innovation in Education for Electrical and Information Engineering, May, 27-29, 2004, Sofia, Bulgaria.
  33. D. Dimitrov, H.Hristov, Modeling the Moving of Charges in Homogenous Magnetic Field, p.27-31, Proceedings of the First International Conference on Communications, Electromagnetics and Medical Applications (CEMA'06), October,19-21,2006, Sofia, Bulgaria.
  34. D. Dimitrov, An Investigation on Propagation and Absorption of Electromagnetic Signals Through Biological Media, p.22-26, Proceedings of the First International Conference on Communications, Electromagnetics and Medical Applications (CEMA'06), October,19-21, 2006,Sofia, Bulgaria.
  35. E. Simeonov, V. Georgieva, D. Dimitrov, Practical Analysis of Signals with Amplitude Modulation, p.495-498, Proceedings of 48th International Csientific Conference on Information, Communication and Energy Systems and Tehnologies, ICEST'03, October,16-18, 2003, Sofia, Bulgaria.
  36. V.Georgieva, D. Dimitrov, M. Neykova, Pulse Modulation Analysis in MATLAB Envirment, p.79-81, Proceedings of the European Cnference "Computer Simulation in Information and Communication Engineering, CSICE'05, October 20-22, 2005, Sofia, Bulgaria.