

Curriculum Vitae

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July 2020

CONTENTS

S U M M A R Y	3
1. CAREER – STUDIES - DUTIES	5
1.1 Biographic details - Career	5
1.2 Studies.....	7
1.3 Long-term Training Courses.....	8
1.4 Other Training Courses (selection).....	8
1.5 Prizes.....	10
1.6 Scholarships.....	10
1.7 Scientific Missions.....	10
2. SCIENTIFIC ACTIVITIES	11
2.1 Research.....	11
2.2 Memberships in Scientific Societies.....	11
2.3 Participation in European and National Research Projects	11
2.4 Official Appointments to International Scientific Committees (selection)	15
2.5 Contribution to Scientific Reviews.....	16
2.6 Organization of International Conferences (Selection)	16
2.7 Editor in Scientific Journals.....	18
2.8 Editor / Guest Editor in Books and Journals	19
2.9 Collaboration with Academic Institutions in Supervising New Scientists.....	21
2.10 Invited lectures.....	22
2.11 Recognition of Scientific Work	23
3. PUBLICATIONS	24
3.1. Dissertations	24
3.2. International Peer Reviewed Scientific Journals.....	24
3.3. Other International Publications.....	34
3.4. Conference Proceedings (selection)	35
3.5. Book Chapters	47
3.6. Other Scientific Publications (selection).....	49

S U M M A R Y

BIOGRAPHIC - GENERAL

- Place and date of birth: Limassol, 19 April 1951.
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STUDIES

- **Ph.D. in Meteorology** (awarded with **EXCELLENCE**, University of Thessaloniki)
- **Master of Science M.Sc. in Agricultural Meteorology** (awarded with **DISTINCTION**, University of Reading, U.K.)
- **Master in Public Sector Management** (MPSM, Cyprus International Institute of Management, CIIM).
- Specialized one-year *ad hoc* training in Agricultural Meteorology (Certificate in **Agricultural Meteorology**, University of Reading).
- Specialized 10-month training in **Applied Meteorology, Aeronautical Meteorology-Weather Forecasting and Mediterranean Meteorology** (Certificates in **Applied Meteorology, Aviation Meteorology, Mediterranean Meteorology**, British Meteorological Office College, Reading, U.K.).
- **B.Sc. in Mathematics** (awarded with **EXCELLENCE**, 9.23, University of Thessaloniki).
- **Secondary School Leaving Certificate** (awarded with **EXCELLENCE**, 19 4/12).

CURRENT POSITIONS

- **Adjunct Professor, The Cyprus Institute**
- **Senior Researcher A', Cyprus University of Technology**

CAREER – DEPARTMENT OF METEOROLOGY

- **Meteorological Officer:** July 1974 – November 1999.
- **Meteorological Officer A':** December 1999 – April 2009.
- **Senior Meteorological Officer:** 15 April 2009 – 17 May 2009.
- **Acting Director:** 18 May 2009 - 15 September 2009.
- **Director:** 16 September 2009 - 30 April 2015.

RECENT DUTIES

- **Director Department of Meteorology.**
- **Permanent Representative of Cyprus** with the World Meteorological Organization.
- **Representative** of the Department of Meteorology to several **International Organization** (e.g., Commission on Atmospheric Sciences of WMO, Commission of Agricultural Meteorology of WMO, EUMETNET, ECOMET, GEO, International Panel for Climate Change (IPCC), European Forecasters Working Group etc).
- Chairman of the Procurement Board of the Ministry of Agriculture, Rural Development and Environment.

PRIZES

- **Young Scientist Research Prize for research in Meteorology** (awarded by the World Meteorological Organization - 1988).
- **Prize in Meteorology** (awarded by the University of Reading, U.K. - 1983).

- **Two Prizes in Mathematics** (awarded by the Greek Foundation for State Scholarships /foundation - 1972, 1973).

SCHOLARSHIPS

- Scholarship by the **British Council** of 10-month duration for studies at the **British Meteorological Office College in Applied Meteorology**.
- Scholarship by the World Meteorological Organization (UNDP) of two-year duration for studies leading to **M.Sc.** at the **University of Reading, U.K.**
- Scholarship by the Cyprus' Government of two-year duration for studies leading to **Master in Public Sector Management, at the Cyprus International Institute of Management (CIIM)**.
- Two scholarships by the **Fulbright Foundation**, of total three-month duration, for studies in the **United States of America on Meteorological radars and Meteorological satellites**.

SCIENTIFIC PUBLICATIONS

- Postgraduate Dissertations: **3 (three)**
- Peer Reviewed Publications in International Journals: **115 (One fifteen)**
- Conference Proceedings (selection): **124 (hundred and twenty-four)**
- Book Chapters: **23 (twenty-three)**
- Editor / Guest Editor in Scientific Books and Journals: 30 (**thirty**)

INTERNATIONAL CITATIONS

- **Scopus** reports 160 publications, with h-index 24, and 3143 citations (July 2020).
- **Google Scholar** reports 276 publications, with h-index, 30, i-10 index 84 and 5191 citations (July 2020).
- **ResearchGate** reports 257 publications, and 4474, citations (July 2020).

FUNDED RESEARCH PROJECTS

- **Principal Investigator of five (5) European Commission funded FP4, FP5, FP6 and FP7 projects and Researcher in one more (1).**
- **Lead Partner of two (2) research projects funded by the Cyprus Research Foundation and Principal Investigator in another 6 (six).**
- **Project Manager of two (2) Interreg Archimed IIIB co-funded by the European Commission.**
- **Project Manager of one (1) Balkan Med Interreg project co-funded by the European Commission.**
- **Member of the Management Committee and Researcher of four (4) COST projects funded by the European Commission.**

CONFERENCES - WORKSHOPS

- Organized and/or participated in dozens of Conferences – Workshops.

TRAINING SEMINARS

- Attended dozens of Training Courses and Seminars.

SUPERVISION OF NEW SCIENTISTS

Collaborated with the University of Cyprus, Polytechnic University of Turin, Cyprus University of Technology, the Cyprus Institute, the University of Thessaloniki and the University of Malta in supervising and examining graduate and postgraduate dissertations.

1. CAREER – STUDIES - DUTIES

1.1 Biographic details - Career

I was born in Limassol, Cyprus on 19 April, 1951. I graduated from the Second Gymnasium for Boys of Limassol in June 1968 with **EXCELLENCE** (19 $\frac{4}{12}$). After graduation and until September 1969, I served in the Cyprus' National Guard.

In September 1969, I enrolled in the Mathematics Department of the Faculty of Physics and Mathematics of the of the Aristotelian University Thessaloniki. I was awarded a B.Sc. in **Mathematics** in September 1973 with **EXCELLENCE** (9.23 out of 10). During my studies I was granted two scholarships offered by the Greek State Foundation for Scholarships.

On my return to Cyprus after my graduation, I was shortly employed as a casual employee in the Ministry of Agriculture and Natural Resources. On 1st July 1974, I was appointed to the post of Meteorological Officer in the Department of Meteorology and until August 1975 I worked in the Climatology Section of the Department.

In September 1975, following a selection process, I was awarded a scholarship by the British Council to attend a specialized course in Meteorology at the British Meteorological Office College, in Reading U.K. This five-month course was focused on **Synoptic Meteorology – Weather Forecasting** leading to the post-graduate certificate in **Applied Meteorology (AMC)**. Which is awarded after successful attendance and examination on both theoretical and practical aspects. In the following, I attended courses in **Mediterranean and Aeronautical Meteorology**, of a total duration of three months. As part of this British Council Scholarship, I was seconded to the London Airport (Gatwick) for professional practical training.

On my return to Cyprus, in March 1976, I was transferred to the Synoptic and Aeronautical Meteorology and Weather Forecasting Office of the Department of Meteorology. My transfer coincided with the foundation of this section, thus contributing to its establishment (before 1975, the responsibility for aeronautical and general weather forecasting rested with the British Meteorological Office). With the establishment of the Weather Forecasting Office of the Department of Meteorology, I started performing the duties of the Head of the operational Weather Forecasting shift at Larnaca Airport, which has the responsibility of all weather forecasts and relevant applications for the country. In parallel, to the weather forecasting duties, I contacted research in various areas of meteorology, I supervised, coordinated and trained technical and scientific staff.

In August 1981, I was nominated for funding by the World Meteorological Organization (through the United Nations Development Programme) for two-year postgraduate studies at the Department of Meteorology of the University of Reading, U.K. Initially, I followed an *ad hoc* course in **General Meteorology and Agricultural Meteorology** of a total one-year duration. With the completion of this course and successful examinations, I was awarded a certificate and I was accepted to follow the Masters course in Agricultural Meteorology. In June 1983, I was awarded the M.Sc. Degree in Agricultural Meteorology with **DISTINCTION**. My dissertation was entitled “*Modelling the epidemics of *Phytophthora infestans*”.*

In addition, for my entire educational record, the University of Reading awarded to me the **Meteorology Prize**; this Prize is awarded to postgraduate students with outstanding performance.

After the completion of my M.Sc. studies, the World Meteorological Organization funded my postgraduate secondment for a period of three months at the **Animal Virus Research Institute** near Pirbright U.K. At this Institute I had the opportunity to continue a

previous associateship that I had with the its Director, on the effect of meteorological factors on the transfer of parasitic insects in the Middle East and the Eastern Mediterranean.

On my return to Cyprus, in 1983, I continued my duties as the Head of the operational weather forecasting shift at Larnaca Airport, but for nearly one year, I worked in parallel on applications of Meteorology to Agriculture and more specifically on applications of weather forecasting to plant protection and agricultural production.

My duties included weather forecasting for various applications, co-ordination and supervision of staff. I continued performing research duties, as well. I have personally undertaken the computerization of the weather forecasting office and got involved in the drafting of the technical specifications for most of the newly acquired equipment. I was also involved in missions for factory and site acceptance tests of equipment, as well as the supervision of its installation and operation in Cyprus.

I have attended tens of training seminars in Cyprus and abroad; in the following I have trained the local staff in the respective areas. The weather forecasting office is fully computerized today.

In December 1999, I was promoted to the position of the Meteorological Officer A'. As part of my duties, I was appointed **Officer-in-Charge** of the meteorological offices at Larnaca and Paphos Airports. In 2001, I have undertaken the re-positioning of the weather forecasting at the new premises which houses the units of Weather Forecasting and Aeronautical Meteorology. From the position of the Officer-in-Charge, I coordinated the necessary tasks in order to obtain the **European certification** for the services to aviation offered by the Department of Meteorology; in June 2007, the National Supervisory Authority awarded to the section that I was heading the European Certification following all the auditing prerequisites. I was appointed in charge of the **ISO 9001:2000** certification for the services offered to the civil aviation and as Quality Manager.

On 15 April 2009, I was promoted to the position of the **Senior Meteorological Officer** and appointed as Head of the **Synoptic and Aeronautical Meteorological Section**. I was appointed as **Acting Director of the Department of Meteorology** on 18 May 2009. I was subsequently appointed to the post of the **Director of the Department of Meteorology** on 15 September 2009. From this capacity, I was formally appointed as the **Permanent Representative of Cyprus** with the World Meteorological Organization (WMO) and Representative of Cyprus to the European Organizations EUMETNET EIG and ECOMET EIG. Another public position that I was appointed officially is that of the Chairman of the Procurement Board of the Ministry of Agriculture, Rural Development and Environment. In September 2015, I was appointed as a **Senior Research Affiliate** with the Cyprus Institute. and since September 2016, I am affiliated with the Cyprus Institute as an **Adjunct Professor**.

Since September I am affiliated with the Cyprus University of Technology as a **Senior Researcher A'**.

I was awarded my Doctorate degree (Ph.D.) from the Faculty of Science of the Aristotelian University of Thessaloniki in September 1984 with **EXCELLENCE**. The title of my dissertation was *Contribution to the Study of the Exchanges of Various Forms of Energy During the Wintertime Cyclogenesis over the Mediterranean region*", falling within the area of Dynamic Meteorology.

In September 1991, following a selection procedure, I was awarded a two-year scholarship to attend a course in Public Sector Management at the Cyprus International Institute of Management (CIIM). The course has led to the award of the **Master in Public Sector Management (MPSM)**. During this course, I had the opportunity to focus on matters related to the Administration and Management of a National Meteorological Service and as a result, I prepared my dissertation entitled: "*A strategy for the transformation from a Control Model to a Commitment Oriented Human Resource Management Model in the Meteorological Service*".

In July 1997, the **Fulbright Commission** of the United States of America awarded a two-month scholarship to attend a specialized course of study on Meteorological Satellites and Radars. In this framework, I followed an advanced training on satellites and radar at the National Centre Atmospheric Research (NCAR) in Boulder, Colorado, and on radars at the factory of Enterprise Electronic Corporation, Enterprise, Alabama (which had manufactured the first weather radar operated by the Department of Meteorology) in Alabama and at the Department of Meteorology of the University of North Dakota.

One more Fulbright Commission scholarship was awarded in August 2006, for training on meteorological radar and advanced computer software for meteorological applications.

I am married with two daughters 38 years old.

1.2 Studies

1. Doctor of Science Degree – Ph.D. in Meteorology awarded by the Aristotelian University of Thessaloniki (Department of Meteorology and Climatology – Faculty of Science).

Dissertation: *Contribution to the study of the exchanges of various forms of energy during wintertime cyclogenesis in the Mediterranean region.*

Awarded with **EXCELLENCE**.

September 1984.

2. Postgraduate Degree - Master of Science, M.Sc. in Agricultural Meteorology awarded by the University of Reading, U.K.

Dissertation: *Modelling the epidemics of *Phytophthora infestans*.*

Awarded with **DISTINCTION**.

July 1983.

3. Postgraduate Degree- Master in Public Sector Management (MPSM) awarded by the **Cyprus International Institute of Management (CIIM)** after two years of study, supported financially by the Government of Cyprus.

Dissertation: *A strategy for the transformation from a Control Model to a Commitment Oriented Human Resource Management Model in the Meteorological Service.*

Grades: 11 subjects with A, 11 subjects with B, on a scale from A to D.

December 1993.

4. Graduate Degree (B.Sc.) in Mathematics awarded by the Aristotelian University of Thessaloniki.

Awarded with **EXCELLENCE** (9.23 out of 10).

November 1973.

5. Certificate in Applied Meteorology Course, (AMC) and Certificate in Applied Meteorology Course – Part 2, Aviation Forecasting by the British Meteorological Office College, Reading, U.K.

September 1975 – January 1976.

6. Certificate of attendance of a one-year *ad hoc* training course in Agricultural Meteorology from the University of Reading, U.K.

October 1981 – June 1983.

7. Certificate in Mediterranean Meteorology, by the British Meteorological Office College, Reading, U.K.

January - February 1976.

8. Leaving Certificate by the B Gymnasium for Boys, Limassol, Cyprus.
Awarded with **EXCELLENCE** (19 4/12 out of 20).
June 1968.

1.3 Long-term Training Courses

1. British Meteorological Office

London Airport (Gatwick), U.K. – February – March 1974.
Training in operational Synoptic and Aeronautical Meteorology and Weather Forecasting.

2. Animal Virus Research Institute

Pirbright, U.K. July – September 1983
Practical training in agrometeorological applications of a model for long-term transportation of insect that transmit animal viruses.

3. National Center for Atmospheric Research (NCAR)

Boulder, Colorado, United States - July – August 1997.
Courses in Remote Sensing Techniques and Interpretation – applications of meteorological radar and satellites.

4. Enterprise Electronics Corporation

Alabama, United States – August 1997.
Training in Unix System Administration and Training in EDGE software for Weather Radars – Installation and Maintenance.

5. University of North Dakota

North Dakota –United States – August 1997.
Training in the use of weather radars.

6. National Center for Atmospheric Research (NCAR)

Boulder, Colorado, United States – August 2006.
Four-week training course in Numerical Weather Prediction. Installation and running of Weather Research and Forecasting System (WRF) and practical training in weather radars.

7. Weather Graphics

Palestine, Texas, United States – August 2006
Visiting of a commercial – private meteorological enterprise specializing in meteorological data handling and weather graphics.

1.4 Other Training Courses (selection)

1. Training Course in “*Operational Applications of Agrometeorology in Semi-arid Zones*” co – organized by the Italian Government and the World Meteorological Organization in Erice, Sicily, Italy, 1 - 14 October, 1984.

2. Seminar on “*Irreversible Phenomena and Dynamic Systems Analysis in Geosciences*”, organized by NATO Advanced Study Institute, Heraklion, Crete, 14 - 24 July 1985.

3. Symposium and training on “*Agrometeorology of Rain-fed Barley Based Systems*”, co-organized by the Government of Tunisia and the World Meteorological Organization, Tunis 6 - 10 March 1989.
4. Training Workshop on the Interpretation of Numerical Weather Prediction Products in Terms of Local Weather Phenomena and Their Verification, organized by WMO in Wageningen, The Netherlands, 29 July - 9 August 1991.
5. Enterprise Electronics Corporation (Enterprise Alabama, United States of America): One-month Training on Radar Meteorology: Theory and Data Interpretation, July 1994.
6. Digital Equipment Training in Digital Unix User, 27-29 February 1996.
7. Digital Equipment Training in Digital Unix System Administration, 17-23 April 1996.
8. Course in Solaris Unix, Network Management, Communications, Advanced User (SUN computers operating system), organized by Hellenic Technical Enterprises Ltd, 6-29 May 1997
9. University of North Dakota (United States of America): Training in the use and interpretation of Weather Radars, August, 1997.
10. Training Course on Coastal Risk Management and Planning, Malta 2-6 November 1998.
11. Course in Meteorological Database System – Meteorological Operation and Training, 1-3 November 1999, organized by Sofreavia.
12. Two-week training at Degreane-Horizon, Toulon, France, on IRMOS system for automatic weather observation, 20 November to 2 December 2000.
13. One-week training at Degreane-Horizon, Toulon, France, on automatic weather observing systems, including present weather sensors, runway visual range, disdrometer etc, November 2007.
14. Training in data base management - SQL Server, August 2004.
15. Training in Computer Networking systems, December 2004.
16. Training in data bases - SQL Server, June 2000.
17. Training in data bases - SQL Server, October 2005.
18. Cyprus Academy of Public Administration: Workshop on the establishment and operation of Advisory Committees, February, 2005.
19. Certificate of attendance (Civil Protection) in “Information Management and Communications” March 2005.
20. Seminar on “Immediate responsiveness to radiological and other hazardous events” October 2008.
21. Seminar in Quality Management Systems - ISO 9001:2000. September 2008.

22. Training in installation and use of the climatic model PRECIS, Reading, U.K., 11-15 August 2008.

1.5 Prizes

1. In 1988, following an international competition, the World Meteorological Organization awarded to me the **International Research Award for Young Scientist** for my published research entitled “*Limited Area Energetics of Genoa Cyclogenesis*”. The decision of the Award Committee was published in the *Abridged Report with Resolutions - 40 Session of the Executive Council, World Meteorological Organization, Geneva*.

2. The University of Reading, U.K. has awarded to me the **Meteorology Prize** for the academic year 1982-1983. This prize is awarded with the recommendation of the Head of the Department of Meteorology of the University.

3. Prize in **Mathematics** of the Greek Foundation for State Scholarships for the academic year 1970-1971.

4. Prize in **Mathematics** of the Greek Foundation for State Scholarships for the academic year 1971-1972.

1.6 Scholarships

The British Council awarded a scholarship and funded my postgraduate training of ten-month duration at the British Meteorological Office College, U.K. - 1975.

The United Nations Development Programme supported financially my one-year *ad hoc* training and study period at the University of Reading, U.K. -1981-1982.

The United Nations Development Programme awarded a one-year scholarship for study at the University of Reading leading to an M.Sc. - 1982-1983.

Two-year scholarship by the Government of Cyprus to obtain a Master degree in Public Sector Management at the Cyprus International Institute of Management. 1991-1993.

The Fulbright Commission of the United States of America awarded a scholarship for collaboration with NCAR in the use of meteorological satellites and radars – August/September 1997.

The Fulbright Commission of the United States of America awarded a scholarship for studies in advanced software (e.g., Matlab) and visits to several institutes that make use of meteorological satellites and radars as well as advanced weather forecasting systems (NOAA, NCAR etc),

1.7 Scientific Missions

Politecnico di Torino

Turin, Italy - October 2002.

Mission funded by the European Union to the Polytechnic University of Turin, Italy, in order to study methodologies for estimation of precipitation with the aid of weather radars.

Norwegian Meteorological Service

Oslo, Norway – March 2006.

Mission to the Norwegian Meteorological Institute that was funded by the European Union, in order to study issues of Neural Networks application to forecasting low visibility.

2. SCIENTIFIC ACTIVITIES

2.1 Research

My research activities were focused on the following areas:

- Mathematical models for the simulation of dynamic biological processes with applications to agricultural meteorology.
- Atmospheric energetics.
- Development of mathematical methods for weather prediction and their verification.
- Diagnostic investigation of Mediterranean depressions with emphasis on the quantification of various characteristics.
- Applications of Artificial Neural networks in meteorological and climatological issues.
- Saharan dust transportation.
- Applications of weather radar in the estimation of precipitation.
- Applications of satellite meteorology and remote sensing.
- Precipitation, drought, floods and methods for their prediction and mitigation planning.
- Atmospheric and climatic models.

2.2 Memberships in Scientific Societies

- Member of the European Geosciences Union (EGU) – since 2006.
- Member of the American Meteorological Society – since 1984.
- Fellow of the Royal Meteorological Society - since 1982.
- Member of the Hellenic Meteorological Society – since 1976.
- Founding Member and five times President of the Cyprus Meteorological Association.

2.3 Participation in European and National Research Projects

- MEDUSE: Mediterranean Dust Experiment (FP4, Contract No. ENV4-CT95-0036). Scientific Officer and Principal Investigator on behalf of the Department of Meteorology. March 1996 – March 1998.

This project focused on the study and the prognosis of the dust transfer from the Saharan desert into the Mediterranean area, the registration of the quantities of dust with specialized recording stations, the verification of dust forecasts made with numerical models, the relationship of dust transportation with synoptic scale systems that are of particular interest to the Mediterranean area etc. In collaboration with the University of Cyprus, the first numerical weather prediction model was installed and operated in Cyprus for forecasting applications. The model was eta/NMC

which was enhanced with subroutines developed at the University of Athens for dust transfer prediction.

- VOLTAIRE: “Validation of multisensors precipitation fields and numerical modeling in Mediterranean test sites” (project No. (FP5, EVK2-2002-CT-00155). Co-ordinator and Scientific Officer and Principal Investigator of WP3: Radar adjusted rain fields in a complex-orography region (Cyprus) and comparison with TRMM data. November 2002-November 2005.

The central axis of this project was the application of the weather radar of the Cyprus Department of Meteorology to various sectors: a. calibration of weather radar with ground raingauge network in order to estimate precipitation over the entire island, b. calibration of the precipitation radar onboard of the American-Japanese satellite TRMM with respect to the ground radar in Cyprus, and c. correlation of these satellite estimates with the ground rain gauges over Cyprus.

- Member of the Management Committee and Member of WG2 and Member of the Editorial Panel. of COST-717 “Use of radar observations in hydrological and Numerical Weather Prediction models”.

In this COST Action, the assimilation was attempted of precipitation data from weather radar into numerical weather prediction models. Also, the operational application of weather radars to hydrological applications was investigated.

- Focal Point on behalf of the Department of Meteorology to the MEDEX (MEDiterranean EXperiment on "Cyclones that produce high impact weather in the Mediterranean".

This project studied the extreme weather events that affect the Mediterranean which are related to the development of cyclonic systems and had the support of the World Weather Research Programme of the World Meteorological Organization.

- ADIOS: “Atmospheric Deposition and Impact of pollutants, key elements and nutrients on the Open Mediterranean Sea” (FP5, Project number : EVK3-CT-2000-00035). Sub-contractor of the University of Crete.

ADIOS aimed at the understanding of the dimension, the geographical and temporal distributions of the deposition of pollutants in the open Mediterranean sea and the wider Mediterranean basin.

- Participation in COST Action 722: “Short Range Forecasting Methods of Fog, Visibility and Low Clouds”. Member of the Management Committee, Chairman and Member of WGii: "Requirements from the forecasters and from the customers", and Member of the Editorial Panel). Chairman and Member of WG3: Statistical Methods in forecasting fog, visibility and low clouds.

This Action investigated the improvement of forecasting methodologies in fog and stratiform cloud prediction.

- Participation in COST Action 723: “Data exploitation and modelling for the upper troposphere and lower stratosphere”. Member of the Management Committee and Member of WG3: Assessing the State of the UTLS and Understanding the Relevant Processes.

In this Project, research was carried out on various aspects of current knowledge and the study of changes in upper troposphere and lower stratosphere.

- Participation in COST Action 731: “Propagation of uncertainty in NWP and Hydrological Models.” Member of the Management Committee.

This action investigated the propagation of the uncertainty that is inherent in the measurements in Atmospheric and Hydrological models.

- AERAS Project: “A system for the monitoring of air pollution in near-real time” (Research Promotion Foundation Contract # AEIΦO/1104/09).

The main purpose of this project was the planning and operational application of a system which will be able to represent the spatial distribution of air pollution which is primarily due to the transportation of Saharan dust but, in addition, due to anthropogenic influences.

- CLEANAIR Project – “Control of the quality of atmospheric air in urban areas in Cyprus” (funded by the Research Promotion Foundation).

The CLEANAIR project aimed at the evaluation and development of existing European urban models for dispersion of pollutants under the Cyprus natural and urban environment.

- ASYGKE (ΑΣΥΚΓΕ) Project – “An efficient system for weather phenomena prediction by using graphics processors” (funded by the Research Promotion Foundation).

This project aimed at the design, operational use and evaluation of a computational system of high capacity in order to run atmospheric models for weather forecasting. The novelty of this projects lies with the use of graphics processors that had a very low cost and which can offer large computational power, the use of existing equipment in an effort to achieve improved computational times.

- FLASH – “Observations, Analysis and Modeling of Lightning Activity in Thunderstorms for use in Short Term Forecasting of Flash Floods”. A Specific Targeted Research Project (STREP- FP6, European Community Contract Number 036852) - Global Change and Ecosystems - EU Framework 6 Programme. Principal Investigator and Work Package co-ordinator

The scientific and technological target of this project was the issuance of improved flash floods forecasts in the area of the Mediterranean by using, mostly, lightning detection systems. For this purpose, data bases from previous flash flood events and lightning data were widely used.

- PRODIM: “Proactive management of water systems to face drought and water scarcity in islands and Investigator and Manager coastal areas of the Mediterranean” An Interreg IIIB project co-funded by the European Union. Principal Investigator and Project Manager for Cyprus.

In this project, the drought, as a phenomenon over several regions in the Mediterranean was studied and best practices were drafted and submitted to the European Commission in mitigating the effects of drought at various decision making levels.

- RISKMED - Weather Risk Reduction in the Central and Eastern Mediterranean - RISKMED” An Interreg IIB project co-funded by the European Union. Principal Investigator and Project Manager for Cyprus.

The target of this project was the establishment and operational management of an automated early warning system of extreme hazardous weather events. The system was based on a limited area weather prediction model and became a major operational tool for the staff of the weather forecasting office of the Cyprus Department of Meteorology in issuing timely warnings.

- Principal Investigator and Contact Person of project EMMA of the European Meteorological Services Network (EUMETNET).

This project is co-funded by the National Meteorological Services of Europe with the purpose of establishing an operating an online system that will be able to represent graphically observed or forecast extreme weather and other natural phenomena (e.g., forest fires, high seas etc). The system used a color code and is one of the best performing projects of the organization it is open to the public and interested organizations with a high number of daily visiting hits.

- Principal Investigator and Contact Person of project OPERA of the European Meteorological Services Network (EUMETNET).

This project is also funded by the National Meteorological Services of Europe co-ordinating their efforts to establish a unified weather radar network in Europe which will make available in near-real time the radar images from the European weather radars.

- Project Co-ordinator of the Project HEAT ISLAND: “Study of the Heat Island effect in Cyprus” (Funded by the Research Promotion Foundation - AEIFORIA/ASTI/0308(BE)/01).

In this project, the effects of urbanization on the temperature changes has been studied.

- EWENT – “Extreme weather impacts on European networks of transport” (FP7 - Grant agreement no.: 233919). Principal Investigator.

Within the framework of this project, the effects of the extreme weather events on the transportation system of Europe was investigated and studied. EWENT studied the effectiveness of proposed measures in order to prevent and mitigate such effects.

- Principal Investigator of project Satflood: “Combined use of satellite remote sensing and hydraulic modeling to estimate the level of risk in flood events at catchment in Cyprus” - (funded by the Research Promotion Foundation).

This project focused on the study of flood events in Cyprus.

- Principal Investigator in project RADVAL: “Conventional and non-conventional observations of rainfall in the Southern Mediterranean Sea: (Funded by the Governments of Italy and Cyprus)

The project studied conventional (e.g., rain-gauges) and non-conventional (e.g., radars) methodologies of precipitation estimation.

- Principal Investigator in project Airspace: “Air pollution monitoring from Space in Cyprus” (funded by the Research Promotion Foundation - AEIFORIA/ASTI/0609(BE)

In this project the exploitation of various observational platforms for atmospheric pollution was investigated, including surface and satellite-borne systems.

- E-Wave Project (funded by the Research Promotion Foundation – Principal Investigator

The focus of this project was the study of the potential of sea waves to produce electric energy.

- Principal Investigator, Project MOWE-IT: “Management of weather events in transport system”, FP7 Project number 314506 (Call identifier FP7-TPT-2012-RTD-1)

This project was essentially a continuation of the EWENT project, as well as other relevant project funded by the European Commission. The project concentrated its efforts in collecting all relevant information to the effects of the climatic change on the extreme events occurrences and the subsequent influence and impacts on various transportation systems in Europe.

- Researcher in project AG_WATER (co-financed by the European Regional Development Fund and the Republic of Cyprus through the Research Promotion Foundation).

This project was focused on the effective management of water resources. The project developed the Cyprus green-blue water model to compute sustainable irrigation water supplies, agricultural water use, crop yields and economic indicators for 2020-2050. The mapping and graphing of water, production and economic indicators under different policy, economic and climate change scenarios will provide policy makers in Cyprus with the best possible scientific basis for informed decision making.

- Principal Investigator in project DISARM (BalkanMed Interreg, co-funded by the European Commission)

This two-year project which started in September 2017, investigates the establishment and operational usage of Forest Fire Indices that can be uniformly be adopted in all participating countries, namely Cyprus, Greece and Bulgaria.

2.4 Official Appointments to International Scientific Committees (selection)

Member of the Commission of Agricultural Meteorology of the World Meteorological Organization (WMO) from 1985 until 2001. From this position, I prepared and submitted several reports and reviews, especially on agrometeorological mathematical modelling.

Member of the Commission of Atmospheric Science of the World Meteorological Organization from (WMO) from 2001 till 2009.

Appointed in several Working Groups on professional and scientific issues. Within the assignments of such a working group, I carried out a research on “the user requirements for agrometeorological forecasts in Cyprus”. This study was subsequently used by the World Meteorological Organization in developing countries.

At the invitation of the **Intergovernmental Panel on Climate Change (IPCC)**, I have contributed to the Working Group on the effects of Climate Change as specialized scientist.

Member for over 15 years of the Working-Group of European Forecasters which represents Weather Forecasters in the European region.

Contact Person of the Department of Meteorology for the Early Warning System for radioactive events (Global Environmental Emergency Response), including nuclear accidents.

Representative of the Department of Meteorology to the World Meteorological Organization Committee for the 2000 issue (Y2K).

2.5 Contribution to Scientific Reviews

Reviewer in the following scientific journals:

Climate (MDPI), Atmospheric Measurement Techniques, International Journal of Climatology, Advances in Geosciences, International Journal of Environment and Pollution, Journal of Hydrology, Pure and Applied Geophysics, Natural Hazards, Meteorological Applications, Theoretical and Applied Climatology, Environmental Monitoring and Assessment, Advances in Meteorology, Annales Geophysicae, The Open Atmospheric Science Journal, Water Resources Management, Atmospheric Research, Quarterly Journal of the Royal Meteorological Society, Soft Computing, Mediterranean Marine Science, Remote Sensing, Energy, Remote Sensing of Environment, Meteorology and Atmospheric Physics, Natural Hazards, Renewable Energy, Journal of Selected Topics in Applied Earth Observations and Remote Sensing, Reviewer of the Austrian Science Fund (FWF), International Journal of Disaster Risk Reduction, Climate (MDPI).

2.6 Organization of International Conferences (Selection)

Member of the International Committee of the EANN 2003 Conference – Engineering Applications of Neural Networks, Malaga, Spain, 8-10 September 2003.

Vice-chairman of the Organizing Committee and Secretary of the 7th Panhellenic (International) Conference on Meteorology, Climatology and Atmospheric Physics – 28-30 September 2004.

Member of the Scientific Committee of “I. Voltaire Workshop” – Barcelona 6-7 October 2003.

Member of the Scientific Committee of “II. Voltaire Workshop – Ljubljana 6-8 October 2004.

Member of the Scientific Committee of the “Final Voltaire Conference” which was conducted within the EMS/ECAM Conference Utrecht, Netherlands, 13 September 2005.

Member of the Scientific Committee of the “Final Conference of COST 722 – Ljubljana, Slovenia – 2006.

Convener General Session on Precipitation (Observation, modeling and verification of Precipitation) European Geosciences Union, Vienna, Austria, 2-8 April, 2006.

Member of the Scientific Committee of the 7th Plinius Conference, Crete, September 2005.

Member of the Scientific Committee of the 8th Plinius Conference, Israel, September 2006.

Convener of the AS1.03 Session on Observation, Prediction and Verification of Precipitation (General Session). European Geosciences Union, Vienna, 15-20 April 2007.

Member of the Scientific Committee of the 9th Plinius Conference, Verena, Italy, September 2007.

Member of the Scientific Committee of the of the 10th International Conference on Meteorology, Climatology and Atmospheric Physics, Thessaloniki, May 2008.

Convener of the AS1.03 Session on Observation, Prediction and Verification of Precipitation (General Session). European Geosciences Union, Vienna, 13-19 April 2008.

Convener of the AS1.3 Session on Precipitation (General Session): Measurement, Remote Sensing, Climatology and Modelling. European Geosciences Union, Vienna, April 2009.

Member of the Scientific Committee of the 11th Plinius Conference, Barcelona, September 2009.

Member of the Scientific Committee of the 12th Plinius Conference, Corfu, Greece, September 2010.

Convener of the AS1.3 Session on Precipitation (General Session): Measurement, Remote Sensing, Climatology and Modelling. European Geosciences Union, Vienna, April 2010.

Member of the Scientific Committee of the 10th International Conference on Meteorology, Climatology and Atmospheric Physics (COMECAP 2010), Patras, 25-28 May 2010.

Member of the Scientific Committee of the 13th Plinius Conference, Savona, Italy, September 2011.

Convener of the AS1.3 Session on Precipitation (General Session): Measurement, Remote Sensing, Climatology and Modelling. European Geosciences Union, Vienna, April 2011.

Convener of the AS1.3 Session on Precipitation (General Session): Measurement, Remote Sensing, Climatology and Modelling. European Geosciences Union, Vienna, April 2012.

Member of the Scientific Committee of the 11th International Conference on Meteorology, Climatology and Atmospheric Physics (COMECAP 2012), Athens, 29 May – 1 June 2012.

Convener of the AS1.3 Session on Precipitation (General Session): Measurement, Remote Sensing, Climatology and Modelling. European Geosciences Union, Vienna, April 2013.

Member of the Local Organizing Committee of the ‘First International Conference on Remote Sensing and Geoinformation of Environment’ RSCY2013, Paphos-Cyprus April 8-10, 2013.

Member of the Local Organizing Committee of the ‘Second International Conference on Remote Sensing and Geoinformation of Environment’ RSCY2014, Paphos-Cyprus 7-10 April, 2014.

Convener of the AS1.3 Session on Precipitation (General Session): Measurement, Remote Sensing, Climatology and Modelling. European Geosciences Union, Vienna, April 2014.

Member of the Scientific Committee of the 12th International Conference on Meteorology, Climatology and Atmospheric Physics (COMECAP 2014), Heraklion, Crete, 28 May – 31 May 2014.

Member of the Local Organizing Committee of the ‘Third International Conference on Remote Sensing and Geoinformation of Environment’ RSCY2015, Paphos-Cyprus March 16-19, 2015.

Convener of the AS1.3 Session on Precipitation (General Session): Measurement, Remote Sensing, Climatology and Modelling. European Geosciences Union, Vienna, April 2015.

Convener of the AS1.3 Session on Precipitation (General Session): Measurement, Remote Sensing, Climatology and Modelling. European Geosciences Union, Vienna, April 2016.

Member of the Local Organizing Committee of the ‘Fourth International Conference on Remote Sensing and Geoinformation of Environment’ RSCY2016, Paphos-Cyprus March, 2016.

Convener of the AS1.3 Session on Precipitation (General Session): Measurement, Remote Sensing, Climatology and Modelling. European Geosciences Union, Vienna, April 2016.

Member of the Local Organizing Committee of the ‘Fifth International Conference on Remote Sensing and Geoinformation of Environment’ RSCY2017, Paphos-Cyprus March, 2017.

Convener of the AS1.10 Session on Precipitation (General Session): Measurement, Remote Sensing, Climatology and Modelling. European Geosciences Union, Vienna, April 2017.

2.7 Editor in Scientific Journals

Associate Editor of **Atmospheric Research** (Elsevier) - 2010 till today.

Member of the Editorial Board of **Heliyon** (Cell-Elsevier) – 2015 till today.

Member of the Expert Committee of **Tethys** (Catalan Meteorological Society) -2006 till today (<http://www.tethys.cat/en>).

Member of the Editorial Board of **Renewable Energy** (Elsevier) - 2013 till today.

Member of the Editorial Board of **Remote Sensing** (MDPI) – 2018 till today.

2.8 Editor / Guest Editor in Books and Journals

1. Rossa, A., Bruen, M., Frühwald, D., Macpherson, B., Holleman, I., Michelson, D., and **Michaelides, S.** (Editors) (2006): Use of Radar Observations in Hydrological and NWP Models, 292pp. OPOCE Publishers, 292 pp, ISBN: 92-894-4842-3.
2. **Michaelides, S.** (Editor) (2005): Short range forecasting methods of fog, visibility and low clouds. Workshop Proceedings, Larnaca, Cyprus, May 2004, 130pp. OPOEC Publishers, ISBN 92-898-0021-6.
3. Jacobs, W., Nietosvaara, V., **Michaelides, S.C.**, and Gmoser, H. (Editors), 2005: Cost Action 722 - Short-range forecasting methods of fog, visibility and low clouds. Phase I Report. 201pp. OPOCE Publishers. ISBN 92-898-0005-4.
4. Jacobs, W., **Michaelides, S.C.** (Editors) (2006): Short range forecasting methods of fog, visibility and low clouds. Workshop Proceedings – Langen, Germany, October 2005, 61pp. OPOCE Publishers, ISBN/ISSN: 978-92-898-0026-6.
5. **Michaelides, S.** (Editor) (2005): Proceedings of the 7th Panhellenic (International) Conference of Meteorology, Climatology and Atmospheric Physics. – Volume I: (1-482pp) [ISBN 9963-9160-1-5] and Volume II: (483-1020pp) [ISBN 9963-9160-0-7].
6. **Michaelides, S.** (Guest Editor) (2006): *Meteorologische Zeitschrift*, Special Issue.
7. **Michaelides, S.** and Amitai, E. (Guest Editors) (2007): Advances in Geosciences, European Geosciences Union (2006), Special Issue, Volume 10.
8. **Michaelides, S.** (Guest Editor) (2008): Advances in Geosciences, European Geosciences Union (2007), Special Issue, Volume 16.
9. **Michaelides, S.** (Editor) (2008): Precipitation: Advances in Measurement, Estimation and Prediction. Springer Verlag. 540 p. 38 illus., 23 in color. Hardcover, ISBN: 978-3-540-77654-3.
10. **Michaelides, S.**, Rossi, G., Dalezios, N. and Tsakiris, G. (Guest Editors) (2008): European Water, Special Issue: Water Shortage Management, 23/24 (2008), 145pp.
11. Jacobs, W., Nietosvaara, V., Bott, A., Bendix, J., Cermak, J. and **Michaelides, S.** (Editors) (2008): Short Range Forecasting Methods of Fog, Visibility and Low Clouds. OPOCE Publishers, 490pp. ISBN/ISSN: 978-92-898-0038-9.
12. **Michaelides, S.C.** (Guest Editor) (2009): Advances in Geosciences, Special Issue: "Observation, Prediction and Verification of Precipitation (EGU Session 2008)", Volume 20.
13. **Michaelides, S.C.** (Guest Editor) (2009): Atmospheric Research – Special Issue entitled “Precipitation Science: Measurement, Remote Sensing, Climatology and Modeling - December 2009, Volume 94, Issue 4.
14. **Michaelides, S.**, Nicolaidis, K., and A. Orphanou (Editors) (2010): Advances in Geosciences, Special Issue: 10th EGU Plinius Conference on Mediterranean Storms (2008). Volume 23.

15. **Michaelides, S.** (Editor) (2010): Advances in Geosciences, Special Issue: Precipitation: Measurement, Climatology, Remote Sensing, and Modeling (EGU Session 2009). Volume 25.
16. **Michaelides, S.C.** and Athanasatos, S. (Editors) (2011): Advances in Geosciences, Special Issue: Precipitation: Measurement, Climatology, Remote Sensing, and Modeling (EGU Session 2010), Volume 30.
17. **Michaelides, S.**, Savvidou, K. and Tymvios, T. (Editors) (2009-2011): Advances in Mediterranean Meteorology, *Natural Hazards and Earth System Sciences* (Special Issue), Volume 9.
18. **Michaelides, S.C.** (Guest Editor) (2013): Atmospheric Research – Special Issue entitled “Advances in Precipitation Science”, Volume 119, Pages 1-160 (January 2013).
19. **Michaelides, S.C.** (Guest Editor) (2014): Atmospheric Research – Special Issue entitled “Perspectives of Precipitation Science - Part I”, Volume 131, Pages 1-124 (September 2013).
20. **Michaelides, S.C.** (Guest Editor) (2014): Natural Hazards – Special Issue entitled “Vulnerability of Transportation to Extreme Weather and Climate Change», Volume 72.
21. **Michaelides, S.C.** (Guest Editor) (2014): Atmospheric Research – Special Issue entitled “Perspectives of Precipitation Science - Part II”, Volume 144.
22. **Michaelides, S.C.**, Nastos, P., Flocas, E. (Guest Editors) (2014): Atmospheric Research – Special Issue entitled “Advances in Mediterranean Meteorology”, Volume 152.
23. **Michaelides, S.C.** (Guest Editor) (2014): Atmospheric Research – Special Issue entitled “Perspectives of Precipitation Science - Part III”, (In Preparation).
24. Hadjimitsis, D.G., Themistocleous, K., **Michaelides, S.**, Papadavid D. (Editors) (2013): Proceedings First International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2013). Publisher: SPIE. ISBN: 9780819496386, 748 pp.
25. Hadjimitsis, D.G., Themistocleous, K., **Michaelides, S.**, Papadavid D. (Editors) (2014): Proceedings Second International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2014). Publisher: SPIE. ISBN: 9781628412765, 586 pp.
26. Hadjimitsis, D.G., Themistocleous, K., **Michaelides, S.**, Papadavid D. (Editors) (2015): Proceedings Third International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2015). Publisher: SPIE. ISBN: 9781628417005, 638 pp.
27. Themistocleous, K., Hadjimitsis, D.G., **Michaelides, S.**, Papadavid D. (Editors) (2016): Proceedings Fourth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2016). Publisher: SPIE. ISBN: 9781628419238.

28. **Michaelides, S.** (Editor) (2016): Special Issue: Applications of Geoinformatics for the Prevention and Mitigation of Natural Hazards. *Natural Hazards*.
29. **Michaelides, S.**, Themistocleous, K., Papadavid, G. Hadjimitsis, D. (Editors) (2016): Special Issue: Applications and Research Trends in Remote Sensing and Geoinformation - Third International Conference on Remote Sensing and Geoinformation of Environment - RSCy2016. *Open Geosciences*.
30. Themistocleous, K., **Michaelides, S.**, Papadavid D., Ambrosia, V., Schreier, G., Hadjimitsis, D.G. (Editors) (2017): Proceedings Fifth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2017). Publisher: SPIE.

2.9 Collaboration with Academic Institutions in Supervising New Scientists

My collaboration with the University of Cyprus as a **Research Associate** and especially with the Computer Science Department, started in 1991. The collaboration was established within the framework of common investigations of various computer science methodologies to the science of Meteorology. This collaboration has yielded several publications in scientific journals and papers in international conferences. Within this framework, I have also submitted a number of themes for graduate and postgraduate diploma dissertations. Six of them were approved by the Department of Computer Science and led to four graduate and two postgraduate dissertations. During the drafting of these dissertations I assisted in the supervision of the students. Three of these dissertations were subsequently published in scientific journals of as papers in Conference Proceedings.

Member of the Examination Committee for the Doctoral Dissertation of Riccardo Notarpietro that was submitted to **Polytechnic University of Turin**, Italy.

Member of the Examination Committee for the Doctoral Dissertation of Demetris Charalambous – **University of Thessaloniki**.

Member of the examination committee for the Ph.D. dissertation of Giorgos Papadavid, **Cyprus University of Technology**.

Member of the examination committee for the Ph.D. dissertation of Filippos Tymvios, **Cyprus Institute**.

Non-Visiting External Examiner for the M.Sc. dissertation of (Ms) Allanah Bonnici, **University of Malta**.

Non-Visiting External Examiner for the M.Sc. dissertation of (Mr) Roderick Busuttill, **University of Malta**.

External Examiner for the Ph.D. dissertation of (Ms) Elisavet Feloni, **National Technological University of Athens**, Greece.

External Examiner for the Ph.D. dissertation of Mr. Ehsan Sharifi, **University of Vienna**, Austria.

Supervisor for the M.Sc. dissertation of Pantelis Herodotou, the **Cyprus Institute**.

Supervisor for the M.Sc. dissertation of Filipos Charalampous, **the Cyprus Institute**.

Member of the supervising Committee for the Ph.D. of Ioannis Sophocleous, **the Cyprus Institute**.

Member of the supervising Committee for the Ph.D. of Eleni Loulli, **the Cyprus University of Technology**.

2.10 Invited lectures

I have co-organized the intra-disciplinary Seminar *Meteorology Aids Food Production* which was held in Nicosia, Cyprus in April 1984 and I was one of the keynote speakers.

At the invitation of the World Meteorological Organization, I have presented “a mathematical model for barley growth under semi-arid conditions” at a Symposium held in Tunis. The Symposium on *Agrometeorology of Rain-fed Barley Based Systems* was organized from 6 to 10 March, 1989.

At the invitation of the Director of the Hellenic Meteorological Service, I presented a “mathematical model for barley production” in Athens in March 1989.

The results of my research on a mathematical model of interactions between a potato crop and late potato blight were presented at the Symposium “*Practical Applications of Agrometeorology in Plant Protection*” that was held in Florence, Italy from 4 to 7 December 1990, at the invitation of the World Meteorological organization.

At the invitation of the Director of the Hellenic Meteorological Service, I presented a model for the interactions between a potato crop and late potato blight, at a Seminar in Athens in December 1990.

The results of a practical application of a method for discrete multi variable analysis in forecast verification was presented in a Workshop at Wageningen, Netherlands in August 1991.

At the invitation of the International Centre for Science and High Technology and the International Centre for Theoretical Physics, I presented the major results of my research on the energetics of baroclinic depressions at a Seminar that was organized in Trieste, Italy from 18 to 22 May 1992.

In May 1994, I have presented an invited paper at the 2nd Panhellenic Conference of Greek and Cypriot Physicists entitled “Frictional Processes in the Atmosphere”

I was a **Keynote speaker** at the World Weather Research Programme Symposium, on Nowcasting and Very Short Forecasting, held in Toulouse, France, from 5 to 9 September 2005. The title of my presentation was “Activities on short-range forecasting methods of fog, visibility and low clouds”.

I was **Keynote speaker** at the International Conference on Meteorology, Climatology and Atmospheric Physics (COMECAP 2012) that was held in Athens.

I was **Keynote speaker** at the International Conference on Meteorology, Climatology and Atmospheric Physics (COMECAP 2014) that was held in Heraklion, Crete.

I was invited **Keynote speaker** at the International Conference on Meteorology, Climatology and Atmospheric Physics (COMECAP 2016) that was held in Thessaloniki, 19.09.2016 to 21.09.2016. Title of talk: Artificial Neural Networks: a nonlinear tool for applications in Meteorology and Climatology

2.11 Recognition of Scientific Work

Scopus reports 129 publications with h-index 20 and 1632 citations (25 September 2017).

Google Scholar reports 222 publications with h-index 26, i-10 index 64 and 3259 citations (25 September 2017).

ResearchGate reports 223 publications and 2562 citations (25 September 2017).

My published papers are reported in independent data bases like **Academic Journals Database, IngentaConnect, British Library Direct, SRef, ScientificCommons etc.**

At a European level, my work on precipitation was recognized by the European Geosciences Union (EGU) that has assigned to me the **permanent organization** of the **General Session** on Precipitation (Atmospheric Sciences Division) at its General Assemblies. I have already organized ten such sessions (every year from 2006 till 2015). Almost every year, this session gathers the highest number of papers in the Atmospheric Sciences Division.

In recognition of my work on issues of Mediterranean Meteorology and Climatology, the Natural Hazards Division of EGU, has appointed me as the organizer of the 10th Plinius Conference that was held in Nicosia under my Chairmanship, September 2008.

The National Aeronautics and Space Administration (NASA) of the United States has appointed me as the contact person of Cyprus for its Ground Validation project within the framework of the Global Precipitation Measurement mission.

3. PUBLICATIONS

3.1. Dissertations

- 3.1.1. **Michaelides S.C.** (1984): Contribution to the Study of the Exchanges of Various Forms of Energy During the Wintertime Cyclogenesis over the Mediterranean region. Annals Faculty of Science, Appendix No. 1, Volume 23, 294pp., University of Thessaloniki, (In Greek).
- 3.1.2. **Michaelides, S.C.** (1983): Modelling the epidemics of *Phytophthora infestans*. M.Sc. thesis, University of Reading, U.K., 98pp.
- 3.1.3. **Michaelides, S.C.** (1993): A Strategy for the Transformation from a Control Model to a Commitment Oriented Human Resource Management Model in the Meteorological Service. Cyprus International Institute of Management (CIIM), 89pp.

3.2. International Peer Reviewed Scientific Journals

- 3.2.1. **Michaelides, S.C.** (1983): Components of large-scale kinetic energy generation during an eastern Mediterranean cyclogenesis. *Archives for Meteorol., Geophysics and Bioclimatol., Ser.A*, 32, 247-256.
- 3.2.2. **Michaelides, S.C.** (1985): A simulation model of the fungus *Phytophthora infestans* (Mont) De Bary. *Ecological Modelling*, **28**, 121-137.
- 3.2.3. **Michaelides, S.C.** (1987): Limited area energetics of Genoa cyclogenesis. *Monthly Weather Review*, 115, 13-26. AWARDED THE 1988 RESEARCH AWARD FOR YOUNG SCIENTIST, BY THE WORLD METEOROLOGICAL ORGANIZATION (WMO)
- 3.2.4. **Michaelides, S.C.** (1988): Solving the one-dimensional linear advection equation. *Meteorologika*, **73**, 251-259.
- 3.2.5. **Prezerakos, N.G.** and **Michaelides, S.C.** (1989): A composite diagnosis in sigma coordinates of the atmospheric energy balance during intense cyclone activity. *Quart. Journal of the Royal Meteorol. Soc.*, **115**, 463-486.
- 3.2.6. **Prezerakos, N.G.**, **Michaelides, S.C.** and **Vlassi, A.S.** (1990): Atmospheric synoptic conditions associated with the initiation of north-west African depressions. *International Journal of Climatology*, **10**, 711-729.
- 3.2.7. **Michaelides S.C.** (1991): Comparative regression analysis coupled with rational verification for forecasting night cooling. *Applied Stochastic Models and Data Analysis*. **7**, 237-255.
- 3.2.8. **Prezerakos, N.G.**, **Prezerakou, E.** and **Michaelides, S.C.** (1991): A verification method for aerodrome forecasts. *The Meteorological Magazine*, **120**, 31-35.
- 3.2.9. **Michaelides, S.C.** (1991): A dynamic model of the interactions between the potato crop and *Phytophthora infestans*. *European Plant Protection Organization Bulletin*, **21**, 515-525.

- 3.2.10. **Michaelides, S.C.** (1992): A spatial and temporal energetics analysis of a baroclinic disturbance in the Mediterranean. *Monthly Weather Review*, **120**, 1224-1243.
- 3.2.11. Schizas, C.N., Pattichis, C.S and **Michaelides, S.C.** (1994): Forecasting minimum temperature with short time-length data using artificial neural networks. *Neural Networks World*, **2**, 219-230.
- 3.2.12. Prezerakos, N.G., Flocas, H. and **Michaelides, S.C.** (1997): Absolute vorticity advection and potential vorticity of the free troposphere as synthetic tools for the diagnosis and forecasting of cyclogenesis. *Atmosphere-Ocean*, **35** (1) , 65-91.
- 3.2.13. Prezerakos, N.G., Flocas, A.A., **Michaelides, S.C.** (1998): Upper-tropospheric downstream development leading to surface cyclogenesis in the Eastern Mediterranean. *Meteorological Applications*, **6**, 313-322.
- 3.2.14. **Michaelides, S.C.**, Prezerakos, N.G. and Flocas, A.A. (1999): Quasi-Lagrangian energetics of an intense Mediterranean cyclone. *Quarterly Journal of the Royal Meteorological Society*, **125**, 139-168.
- 3.2.15. **Michaelides, S.C.**, Evripidou, P. and Kallos, G. (1999): Monitoring and Predicting Saharan Desert Dust transport in the Eastern Mediterranean. *Weather*, **54**, 359-365.
- 3.2.16. Price, C., **Michaelides, S.C.**, Pashiardis, S. and Alpert, P. (1999): Long term changes in diurnal temperature range in Cyprus. *Atmospheric Research*, **51**, 85-98.
- 3.2.17. **Michaelides, S.C.**, Pattichis, C.S. and Kleovoulou, G. (2001): Classification of rainfall variability by using artificial neural networks. *International Journal of Climatology*. **21**, 1401-1414.
- 3.2.18. Alpert, P., Ben-Gai, T., Baharad, A., Benjamini, Y., Yekutieli, D., Colacino, M., Diodato, L., Ramis, C., Homar, V., Romero, R., **Michaelides, S.** and Manes, A. (2002): The paradoxical increase of Mediterranean extreme daily rainfall in spite of decrease in total values. *Geophys. Res. Lett.*, Vol 29, No.11, 31-1 - 31-4.
- 3.2.19. Christodoulou, C.I., **Michaelides, S.C.** and Pattichis, C.S. (2003): Multi-feature texture analysis for the classification of clouds in satellite imagery. *IEEE Transactions on Geoscience and Remote Sensing*. **41**, No.1, 2662-2668.
- 3.2.20. Kyrmitsis, M.I. and **Michaelides, S.C.** (2003): WeatherAid: A software for continuous weather monitoring and coding. *Weather*, **59**, 67-72.
- 3.2.21. Nicolaidis, K., **Michaelides, S.C.** and Karacostas, T. (2004): Spatial distribution of some dynamic parameters during the evolution of selected depressions over the area of Cyprus. *International Journal of Climatology*, **24**, 1829-1844.
- 3.2.22. **Michaelides, S.C.** Nicolaidis, K. Karacostas, T. (2004): Statistical characteristics of the cold season depressions over the area of Cyprus. *Meteorological Journal - Meteorologický Časopis*, **7**, 61-66.
- 3.2.23. Gabella, M., **Michaelides, S.**, Perona, G. (2005): Preliminary comparison of TRMM and ground-based precipitation radars for a European test site, *International Journal of Remote Sensing*, **26**, 997-1006.

- 3.2.24. Tymvios, F.S., Jacovides, C.P., **Michaelides, S.C.** and Scouteli C. (2005): Comparative study of Angstrom's and artificial neural networks' methodologies in estimating global solar radiation, *Solar Energy*, 70, 752-762.
- 3.2.25. Sioutas, M., Doe, R., **Michaelides, S.**, Christodoulou, M. and Robins R. (2005): Meteorological conditions contributing to the development of severe tornadoes in southern Cyprus, *Weather*, 61, 10-16.
- 3.2.26. Gabella, M., Joss, J., Perona, G., **Michaelides, S.** (2006): Range Adjustment for Ground-Based Radar, Derived with the Spaceborne TRMM Precipitation Radar *IEEE Transactions on Geoscience and Remote Sensing*, 44, 126-133.
- 3.2.27. Casaioli M., Mariani, S., Accadia C., Gabella M., **Michaelides S.**, Speranza A. and Tartaglione N. (2006): Radar adjusted data versus modelled precipitation: a case study over Cyprus. *Advances in Geosciences*, 7, 85-90.
- 3.2.28. Orphanou, A. **Michaelides, S.**, Savvidou, K., Constantinides, P., Schulz, J.-P. and Voigt, U. (2006): Preliminary verification results of the DWD limited area model LME and evaluation of its storm forecasting skill over the area of Cyprus. *Advances in Geosciences*, 7, 169-174.
- 3.2.29. Nicolaides, K. A., **Michaelides, S.C.**, and Karacostas, T. (2006): Synoptic and dynamic characteristics of selected deep depressions over Cyprus. *Advances in Geosciences*, 7, 1-6.
- 3.2.30. Tartaglione, N., Mariani, S., Accadia, S., Casaioli, M., Gabella, M., **Michaelides S.** and Speranza A. (2006): Sensitivity of Forecast Rainfall Verification to a Radar Adjustment Technique. *Meteorologische Zeitschrift*, 15, 537,543.
- 3.2.31. Joss, J., Gabella, M., **Michaelides, S.** and Perona, G. (2006) Variation of weather radar sensitivity at ground level and from space: case studies and possible causes. *Meteorologische Zeitschrift*, 15, 485-496.
- 3.2.32. Gabella M., **Michaelides, S.C.**, Constantinides, P. and Perona, G. (2006) Climatological validation of TRMM precipitation radar monthly rain products over Cyprus during the first 5 years (December 1997 – November 2002). *Meteorologische Zeitschrift*, 15, 559-564.
- 3.2.33. Retalis, A. and **Michaelides, S.** (2006) Synergetic use of Terra/Modis imagery and meteorological data for studying aerosol dust events in Cyprus. *International Journal of Environment and Pollution*, vol. 36, nos. 1-3, pp. 139 – 150.
- 3.2.34. Goltz, C., Einfalt, T. and **Michaelides, S.C.** (2006): Quality control of rainfall measurements in Cyprus. *Meteorological Applications*, 13, 197-201.
- 3.2.35. Bremnes, J.B. **Michaelides, S.C.** (2007): Probabilistic visibility forecasting using neural networks. *Journal of Pure and Applied Geophysics*, 164, 1365-1381.
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3.3. Other International Publications

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