PERSONAL INFORMATION Maurizio Fermeglia

Enterprise	University	EPR	
Management Level	Full professor	Research Director and 1st level Technologist /	
		First Researcher and 2nd level Technologist	
Mid-Management Level	Associate Professor	Level III Researcher and Technologist	
Employee / worker level	□ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	

WORK EXPERIENCE

2016 - 2018 Ministry of Research Education and University, Viale Trastevere, Roma - Italy Scientific evaluation of professors (ASN) President of the AN commission for sector 09D2 Evaluation of profiles of candidates to professorships at national level
2013 - 2019
University of Trieste, Piazzale Europa 1, 34127 Trieste - Italy Rectorate
Rector of the University of Trieste
Legal representation and management of the University of Trieste
2011 -
DECHEMA, Frankfurt, Germany
Member of the EU working party on thermodynamics
Member of the working party of the European federation of chemical engineering on thermodynamics and transport properties
Coordination of scientific activities
2002 -
University of Trieste, Piazzale Europa 1, 34127 Trieste - Italy
Faculty of Engineering, then Department of Engineering and Architecture
Full Professor of Chemical Engineering
Coordinator of the MOSE (Molecular Simulation Engineering) laboratory of the University of Trieste
2009 - 2013 UNEP / MAP- MedPol 48, Vassileos Konstantinou Ave. 11635 Athens - Greece UN agency Consultant on PRTR implementation Scientific and technical responsibility of PRTR project implementation in developing countries.

 Dates (from – to) Name and address of employer 	2006 - 2013 University of Trieste, Piazzale Europa 1, 34127 Trieste - Italy
Type of business or sector	PhD Schools
 Occupation or position held 	Director of the PhD School of Nanotechnology of the University of Trieste
 Main activities and responsibilities 	Member of the teachers' board and, as the school director, coordination of the teaching and research activities of its PhD students
 Dates (from – to) 	2010 - 2012
 Name and address of employer 	University of Trieste, Piazzale Europa 1, 34127 Trieste - Italy
 Type of business or sector 	Faculty of Engineering
 Occupation or position held 	Director of the Department of Industrial Engineering and Information Technology (DI3)
 Main activities and responsibilities 	Coordination of research activities in industrial engineering, materials engineering and ICT
 Dates (from – to) 	2010 - 2012
 Name and address of employer 	University of Trieste, Piazzale Europa 1, 34127 Trieste - Italy
 Type of business or sector 	Administration and scientific coordination
 Occupation or position held 	President of the 'Council of the scientific structures' of the University of Trieste (CSS)
 Main activities and responsibilities 	Coordination of research activities and science administration for the University
 Dates (from – to) 	1998 - 2011
 Name and address of employer 	ICS – UNIDO, Area Science Park, Padriciano 99, 34012 Trieste - Italy
 Type of business or sector 	UN agency
 Occupation or position held 	Consultant on process simulation for sustainable industrial development
 Main activities and responsibilities 	Training and coordination of activities in the area of sustainable industrial development in developing countries. Project leader of PRTR implementation.
• Dates (from – to)	2009 - 2010
 Name and address of employer 	University of Trieste, Piazzale Europa 1, 34127 Trieste - Italy
 Type of business or sector 	Faculty of Engineering
 Occupation or position held 	Director of the Department of Materials and Natural Resources (DMRN)
 Main activities and responsibilities 	Coordination of research activities in process engineering, materials engineering and environment
 Dates (from – to) 	2006 - 2009
 Name and address of employer 	University of Trieste, Piazzale Europa 1, 34127 Trieste - Italy
 Type of business or sector 	Faculty of Engineering
 Occupation or position held 	Director of the Department of Chemical, Environmental and Raw Materials Engineering (DICAMP)
 Main activities and responsibilities 	Coordination of research activities in process engineering, material engineering and environment
 Dates (from – to) 	2005 - 2008
 Name and address of employer 	University of Trieste, Piazzale Europa 1, 34127 Trieste - Italy
 Type of business or sector 	Industrial Liaison Office (ILO)
 Occupation or position held 	Member of the scientific committee of Innovaction the Fair of Innovation, put in charge of the project by an official Rector's act
 Main activities and responsibilities 	Member of the scientific committee for Innovaction fair and coordination of the participation of the University to the fair.
• Dates (from – to)	1993 - 2006
Name and address of employer	Università di Padova, via 8 Febbraio, 2 - 35122 Padova - Italia
 Type of business or sector 	Faculty of Engineering

 Occupation or position held Main activities and responsibilities 	Member of the teachers' board Member of the teachers' board of the PhD in Chemical Engineering, organized by the Universities of Trieste and Padua. Coordination of PhD projects.
 Dates (from – to) Name and address of employer Type of business or sector Occupation or position held Main activities and responsibilities 	2004 University of Trieste, Piazzale Europa 1, 34127 Trieste - Italy Faculty of Engineering President evaluation committee of CIVR Sector 09 – Industrial Engineering and ICT Selection of research product to be presented for the national university evaluation on Sector 09
 Dates (from – to) Name and address of employer Type of business or sector Occupation or position held Main activities and responsibilities 	1998 - 2003 University of Trieste, Piazzale Europa 1, 34127 Trieste - Italy Rectorate Rector's delegate for the digitalization of the University administration offices Coordination of ICT projects: year 2000, Euro, ERP SAP implementation, SAS data warehouse, students ID and e-mail system, directory service, faculty logistics and students data base
 Dates (from – to) Name and address of employer Type of business or sector Occupation or position held Main activities and responsibilities 	1992 -2002 University of Trieste, Piazzale Europa 1, 34127 Trieste - Italy Faculty of Engineering Associate Professor of Chemical Engineering Research and teaching activities in Chemical Engineering
 Dates (from – to) Name and address of employer Type of business or sector Occupation or position held Main activities and responsibilities 	1983 - 1992 University of Trieste, Piazzale Europa 1, 34127 Trieste - Italy Faculty of Engineering Assistant Professor of Chemical Engineering Research and teaching activities in Chemical Engineering

EDUCATION AND TRAINING

• Dates (from – to) • Name and type of organisation providing education and training • Principal subjects/occupational skills covered • Title of qualification awarded · Level in national classification • Dates (from - to) • Name and type of organisation providing education and training • Principal subjects/occupational skills covered • Title of qualification awarded • Level in national classification • Dates (from - to) • Name and type of organisation providing education and training • Principal subjects/occupational skills covered 2002
Italian Ministry of University
Chemical Engineering Principles
Full Professor
1992
Italian Ministry of University
Chemical Engineering Principles
Associate Professor
1983
Italian Ministry of University

Chemical Engineering Principles

Replace with First name(s) Surname(s)

Title of qualification awardedLevel in national classification	Assistant Professor
 Dates (from – to) 	1981 - 1982
 Name and type of organisation providing education and training 	Technical University of Denmanrk, Lyngby
 Principal subjects/occupational skills covered 	Chemical Engineering Principles
Title of qualification awardedLevel in national classification	Researcher
 Dates (from – to) 	1980 - 1981
 Name and type of organisation providing education and training 	Italian Ministry of Defense
 Principal subjects/occupational skills covered 	Military service as on officer of Alpine infantry
Title of qualification awardedLevel in national classification	Lieutenant, then Captain
 Dates (from – to) 	1974 - 1979
 Name and type of organisation providing education and training 	University of Trieste, Faculty of Engineering
 Principal subjects/occupational skills covered 	Chemical Engineering
Title of qualification awardedLevel in national classification	MSc in Chemical Engineering
 Dates (from – to) 	1974
 Name and type of organisation providing education and training 	Liceo Scientifico G. Oberdan – Trieste, Italy
 Principal subjects/occupational skills covered 	Scientific curriculum
 Title of qualification awarded Level in national classification 	High school graduation

PERSONAL SKILLS AND COMPETENCES.

Mother tongue(s)
Other language(s)
Self-assessment
European level (*)
English
Spanish
French

(s) **ITALIAN**

ENGLISH, SPANISH, FRENCH

ent	Understanding		Speaking		Writing
l (*)	Listening	Reading	Spoken interaction	Spoken production	
ish	C2	C2	C2	C2	C2
ish	B1	B2	A2	A2	A1
ich	A1	A1	A1	A1	A1

(*) Common European Framework of Reference for Languages

SOCIAL SKILLS AND COMPETENCES Living and working with other people, in multicultural environments, in positions I GAINED EXCELLENT MANAGING SKILLS DURING THE EXPERIENCES IN THE MANAGEMENT OF RESEARCH GROUPS, THE MILITARY SERVICE, DIRECTOR OF THE DEPARTMENT AND PHD SCHOOLS AND ABOVE ALL IN THE MANAGEMENT OF THE UNIVERSITY OF TRIESTE FOR 5 YEARS. THE SAME EXPERIENCES ALLOWED ME TO GAIN RELATIONAL SKILLS AND WORKGROUP CAPACITY. IN MORE THAN 15 YEARS OF EXPERIENCE

where communication is important and situations where teamwork is essential (for example culture and sports), etc.

ORGANISATIONAL SKILLS AND COMPETENCES

Coordination and administration of people, projects and budgets; at work, in voluntary work (for example culture and sports) and at home, etc.

TECHNICAL SKILLS AND COMPETENCES With specific kinds of equipment, machinery, etc.

WORKING WITH EU ORGANIZATIONS SPECIFICALLY FOR DEVELOPING AND EMERGING COUNTRIES I GOT SKILLS IN DEALING WITH MULTI LANGUAGE AND MULTI ETHNIC GROUPS.

IN MOST OF THE ACTIVITIES CARRIED OUT DURING MY PROFESSION I HAD TO LEAD, ORGANIZE AND MANAGE GROUP ACTIVITIES. DURING THE MILITARY SERVICE I HAD THE RESPONSIBILITY OF SOLDIERS IN OUTDOOR ACTIVITIES IN THE ALPS, IN SPORT ACTIVITY I WAS TRAINER AND PROFESSIONAL PLAYER AND I ALSO WAS INSTRUCTOR OF MOUNTAINEERING, LEADING GROUPS OF PEOPLE IN THE MOUNTAINS. I WAS RESPONSIBLE OF ALPINE RESCUE TEAM IN FRIULI REGION IN ITALY, THUS MANAGING THE RESCUE ACTIONS. AT THE UNIVERSITY, I MANAGED RESEARCH PROJECTS AND COORDINATED RESEARCH ACTIVITIES.

MY RESEARCH ACTIVITY IS CARRIED OUT AT THE 'DEPARTMENT OF ENGINEERING AND ARCHITECTURE OF THE UNIVERSITY OF TRIESTE. THE MAIN RESEARCH ACTIVITIES ARE FOCUSED ON MULTISCALE MODELING FOR MANAGING THE COMPLEXITY OF PROCESS – PRODUCT DESIGN, SUSTAINABLE PROCESS DESIGN AND ANALYSIS, THEORY, MODELING AND SIMULATION OF NANOSTRUCTURED MATERIALS, DRUG DESIGN AND DESIGN OF CONTROLLED RELEASE PROCESSES. OTHER FIELD OF INTEREST IS TRANSPORT AND THERMODYNAMIC PROPERTY, THEIR EXPERIMENTAL DETERMINATION, CORRELATION AND PREDICTION. IN THIS FIELD, I HAVE DONE EXPERIMENTAL WORK IN THE DETERMINATION OF PHASE EQUILIBRIA (VAPOR - LIQUID, LIQUID - LIQUID AND GAS -LIQUID) DATA, CORRELATION AND PREDICTION OF EXPERIMENTAL DATA BY MEANS OF DIFFERENT MODELS (EXCESS GIBBS ENERGY MODELS AND EQUATIONS OF STATE), APPLICATION OF THE MODELS TO THE SIMULATION OF CHEMICAL PROCESSES (STEADY STATE AND DYNAMIC PROCESSES).

THE RESEARCH ACTIVITY CAN BE SUMMARIZED IN THE FOLLOWING AREAS:

- 1. EXPERIMENTAL DETERMINATIONS
 - a. EXPERIMENTAL DETERMINATION OF PHASE EQUILIBRIUM
 - b. DATA COLLECTION
 - c. EXPERIMENTAL DETERMINATION OF TRANSPORT PROPERTIES
- 2. MULTISCALE MOLECULAR MODELING
 - a. THERMO PHYSICAL PROPERTIES FOR REFRIGERANTS AND ORGANICS
 - b. THERMO PHYSICAL PROPERTIES FOR POLYMERS AND POLYMER SYSTEMS INCLUDING BLENDS
 - c. TRANSPORT PROPERTIES FOR POLYMERS
 - d. NANOTECHNOLOGY AND NANOCOMPOSITES
 - e. CHEMICAL REACTION ENGINEERING
 - f. MOLECULAR MODELING FOR BIOLOGICAL SYSTEMS
- 3. CHEMICAL ENGINEERING THERMODYNAMICS
 - a. EXCESS GIBBS ENERGY MODELS DEVELOPMENT
 - b. EQUATIONS OF STATE DEVELOPMENT
 - c. THERMODYNAMICS OF POLYMER SYSTEMS AND GELS
- 4. PROCESS ENGINEERING
 - a. TRADITIONAL PROCESSES
 - b. NON TRADITIONAL PROCESSES

IN COMPUTER SCIENCE, MY MAIN RESEARCH ACTIVITY IS IN THE DATA BASE AND INTERNET FIELDS, WHERE I FOCUSED ON THE DIFFERENT ASPECTS AND POSSIBILITIES OF PUBLISHING DATA BASE INFORMATION IN THE WWW. IN THIS FIELD, I PERFORMED DESIGN AND DEVELOPMENT OF DATA BASE SYSTEMS, WITH PARTICULAR ATTENTION TO DATA BASE OF PHYSICAL PROPERTIES, TOXICOLOGICAL DATA AND POLLUTANT RELEASES.

IN THE AREA OF NANOMATERIALS I WAS THE LOCAL LEADER OF SEVERAL EU FP6, FP7 AND H2020 PROJECTS DEALING WITH MODELING AND SIMULATION. I WAS SCIENTIFIC CONSULTANT OF ICS - UNIDO WITHIN THE SUBPROGRAM 'PROCESS SIMULATION' FROM 1998 TO 2011 AND OF UNEP FOR THE IMPLEMENTATION OF PRTR IN DIFFERENT COUNTRIES.

I AM IUPAC FELLOWS FROM 2003. I AM MEMBER OF THE EUROPEAN WORKING PARTY OF THERMODYNAMICS AND TRANSPORT PROPERTIES.

COMPUTER SKILLS AND FTN JAVA, C#, VISUAL BASIC PROGRAMMER. DATA BASE DEVELOPER. WINDOWS SYSTEM ENGINEER.

COMPETENCES	ADVANCED USER OF PROCESS SIMULATION AND MOLECULAR SIMULATION SOFTWARE. DATA BASE ADMINISTRATOR. COMPUTER NETWORK DESIGN AND COMPUTER SYSTEM ARCHITECTURES DESIGN. DESIGN AND DEVELOPMENT OF APPLICATIONS AND DATA BASES
ARTISTIC SKILLS AND COMPETENCES Music, writing, design, etc.	I WAS A MEMBER OF A MUSICAL GROUP OF CLASSICAL AND FOLK MUSIC, WHERE I WAS PLAYING STRING INSTRUMENTS.
OTHER SKILLS AND COMPETENCES Competences not mentioned above.	SPORTS PERFORMED: VOLLEYBALL, MOTORCYCLING, TENNIS, CLIMBING SKI, BASKET, ATHLETIC. I WAS MOUNTAINEERING AND SKI INSTRUCTOR FROM 1985 TO 2005. I PARTICIPATED TO DIFFERENT MOUNTAINEERING EXTRA EUROPEAN EXPEDITIONS IN THE EIGHTIES. I WAS A MEMBER OF THE NATIONAL ALPINE RESCUE TEAM FROM 1982 TO 2000. I AM ACADEMIC MEMBER OF THE ITALIAN ALPINE CLUB.
DRIVING LICENSE	LICENSE B (CAR) Italian Mountaineering instructor Italian Ski-touring instructor
Awards & Memberships	I CURRENTLY HOLD THE FOLLOWING POSITIONS, AMONG OTHERS: MEMBER OF THE EFCE WORKING PARTY ON THERMODYNAMICS AND TRANSPORT PROPERTIES, IUPAC FELLOWS, MEMBER OF THE AICHE, MEMBER OF GRICU AND AIDIC. I RECEIVED THE ITALY MEETS ASIA SCIENCE AWARD IN 2015 AND THE CHINESE ACADEMY OF SCIENCE PIFI AWARD IN 2020.
Additional information	I PUBLISHED MORE THAN 230 PEER REVIEWED JOURNAL ARTICLES AND BOOK CHAPTERS AND I MADE MORE THAN 200 CONFERENCE PRESENTATIONS AS INVITED PLENARY, KEYNOTE, ORAL OR POSTER PRESENTER. I HAVE ALSO GIVEN INVITED LECTURES SEMINARS AT NUMEROUS COMPANIES AND ACADEMIC INSTITUTIONS AND ORGANIZED SEVERAL WORKSHOPS ON TOPICS RELATED TO PROCESS ENGINEERING, NANOTECHNOLOGY AND MULTISCALE MODELING. I SUPERVISED DOZENS OF MASTER THESIS IN CHEMICAL ENGINEERING AND COMPUTER TECHNOLOGY AS WELL AS PH.D. PROJECTS AT THE UNIVERSITY OF PADOVA AND AT THE UNIVERSITY OF TRIESTE. IN THE AREA OF NANOMATERIALS I WAS THE LOCAL LEADER OF SEVERAL EU FP6 AND FP7 AND H2020 PROJECTS DEALING WITH MODELING AND SIMULATION. I WAS SCIENTIFIC CONSULTANT OF ICS - UNIDO WITHIN THE SUBPROGRAM 'PROCESS SIMULATION' FROM 1999 TO 2011 AND OF UNEP FOR THE IMPLEMENTATION OF PRTR IN DIFFERENT COUNTRIES FROM 2005 TO 2013. MORE INFORMATION IN <u>WWW.MOLBNL.IT</u> . H INDEX IN 2021 IS 50; NUMBER OF CITATIONS 8639; 110 INDEX 153; TOTAL NUMBER OF PAPERS 570 (GOOGLE SCHOLAR).
Annexes	LISTS OF PUBLICATIONS AND RESEARCH PROJECTS ARE AVAILABLE AT <u>WWW.MOLBNL.IT</u>