


PERSONAL INFORMATION **Ciprian Iliescu**



 Bd. Lacul tei 107, bl 14, sc C et. 7 ap. 120, sector 2, Bucharest Romania

 +40759343964

 ciprian.iliescu@imt.ro ; cipi_sil@yahoo.com

 ciprian.iliescu (skype)

Sex M | Date of birth 16/04/1965 | Nationality Romanian

WORK EXPERIENCE

Jun 2019- Present **Researcher**
National institute for Research and Development in Microtechnologies INCD IMT

- Apply for research grants and programmes (national and European competition)
- Setup collaborative project with National University of Singapore and Northwestern Polytechnical University in Xi'an

Apr 2017-Apr 2019

- Internal project related to e-skin

Senior Research Scientist
BIGHEART, National University of Singapore, Singapore

- Projects related to:
 - Photonic PCR,
 - IoT PCR (collaboration with Northwester Polytehnic University, Xi'an, P.R. China)
 - Perfusion cell culture microfluidic chips,
 - Nuclei Acids Amplification and Testing using paper-based microfluidics.
- Other activities: setup Medical IC lab facilities

March 2017 **Visiting Scientist National institute for Research and Development in Microtechnologies INCD IMT**

- Project: Self-assembling of fluorescent nanoparticles using hydrodynamic focusing

May 2003 – Jan2017 **Senior Research Scientist**
Institute of Bioengineering and Nanotechnology, Singapore

- Successfully led and/or contributed to *CORE FUNDED GRANTED PROJECTS*:
 - Microneedle Array for Transdermal drug delivery - *Project leader* (budget 300K/year-5 years project)
 - Dielectrophoresis Cell-Bead Binding for Gene Extraction - *Project leader* (budget 300K/year-5 years project)
 - Drug Screening Platforms
 - Engineering Complex Tissues with Spatial and Temporal Control of Micro-Environmental Cues
 - Circulating Tumor Cells Isolation for Non-invasive Cancer Diagnostic and Monitoring
- External grants
 - JCO grant (with IMCB, Singapore) "Development of a Human Liver-Vascular Cell-Based Microfluidic Platform to Evaluate Anti-Atherogenic Effects of Nutraceutical" (300K\$)-Co-PI;(2014-2016)
 - Engage in the BMRC-SERC Joint Diagnostics Grant 2014-2016 (S\$10mil) related CTC's isolation
 - Bilateral Singapore-France research grant: (I was the PI from Singapore Institution): "Microfluidic Directed Self-Assembly of Viromimetic Nanomachines" under Merlion Program with CNRS-Paris (G. Tresset) 2010-2011,

- French grant: (PICS2014): Kinetically-controlled assembly of DNA-based nanoparticles by microfluidic device for gene delivery applications (2014-2017) – Investigator
- Industrial collaborative project (total budget ~\$10mil/5years): Deeply engage in an industrial collaboration with “Delta Electronics Inc” related POC for food safety Delta-IBN Life Science and Diagnostics Lab
- Industrial collaborative project with Johnson and Johnson- Investigator
- Managerial activity: Setup and manage the IBN- BioMEMS lab, (2003-2017)
- Training/courses: University of Miami - Collaborative Institutional Training Initiative (CITI PROGRAM): (1) Responsible Conduct Research, (2) Human Subject Research.

Jul 2010 – Jan 2014

Visiting PI and Scientific Director of “Micro and Nanofluidic Lab” National institute for Research and Development in Microtechnologies INCD IMT

- Grant: PI for an EU funded project of €1.5mil: “Microfluidic Factory for Assisted Self-Assembly of Nanosystems” €1.5mil: “Microfluidic Factory for Assisted Self-Assembly of Nanosystems” (MICRONANOFAB), POSCCE/665/12609/209/2010-2015),
- **Managerial activities:**
 - Setup & Lead the “Microfluidic & Nanofluidic Lab” (investments of €600K in IMT cleanroom facilities)
 - Lead the above-mentioned project
 - Organized a seminar on “Plasma processing and Wafer Bonding” (15 June 2011)
- Industrial related activity: Design and XeF₂ dry etching system

May 2001- May 2003

Post-Doctoral Fellow Micromachines Centre, School of Mechanical and Aerospace Engineering, Nanyang Technological University, Singapore

Mar 1990 – May 2001

Dipl. Engineer, IC’s Division, Baneasa S.A.

- Positions: *R & D Engineer, Process Engineer in different departments (Packaging, Wafer fab)*
- Main achievement: optimization and automatization of the IC packaging, setup fabrication of pressure sensors:
- Research grants: Successfully led and worked on 3 projects founded by Romanian Agency of Science

Jan 2000– Dec 2000

CEO and owner MicroSi SRL

- Spin-off with my PhD work
- Pressure sensors packaging

Oct 1989-Mar 1990

Dipl. Engineer SARO S.A. Târgoviste

- Design & process engineer in the “Tool engineering department”
- Improving mechanical design skills

EDUCATION AND TRAINING

May 1999

PhD, University “Politehnica” of Bucharest, School of Mechanical Technology (TCM)

Thesis: “Contribution on design and technology of silicon pressure sensors”
Supervisor : Prof. Dr. Tache Voicu

July 1989

MS, UPB, School of Mechanical Technology

Final Year Project: “Application of holographic interferometry in mechanics”. Graduation score: 93%
Supervisor : Prof. Dr. Tache Voicu

TEACHING EXPERIENCE

Lectures

- **Summer School at Northwestern Polytechnic University, Xi’an**, P.R. China - “Introduction to Microfabrication” – 8 lectures of 2 hours with final assessments 27 July-9 August 2019.
- Industrial lecturer: “Mechatronics design” – National University of Singapore - MCH5004 (August

- 2004, August 2005 and August 2006).
- Industrial lecturer: "Microsensors and microactuators"- National University of Singapore – ME4284 (2005-2015)- 2 lectures every year one related to "Microfabrication" the other one related to my current research
- Lecturer - "Safety Training Course" (NTU 2001-2003)
- "Introduction in MEMS" (Course dedicated for training persons from industry and Polytechnics) (2001-2002).
- Graduate students**
 - Involved in the supervision of Ph.D. students:
 - Liming Yu - National University of Singapore - (graduated in 2007)
 - Deepak Choudhury – National University of Singapore (graduated in 2012)
 - Wen Hao Tong - National University of Singapore (2015)
 - Fang Yu - National University of Singapore (2016)
 - Co-supervisor for two "Master of Science" students: Jia-Shen Wei (NUS graduated in 2005), and Yang Jian Jun (NTU, graduated in 2003)
 - Supervisor of one attachment student (Ph.D.) during GBP program: Felicia Celeste Loe (6 months)
 - Supervisor of one attachment student (Master): Elena Barbarini (Italy)-6 months- "Polytechnico di Turin"
- External evaluator PhD thesis**
 1. Ville Saarela -Aalto University, Department of Materials Science and Engineering-2011,
 2. Ling Siang Hooi -Nanyang Technological University, School of MAE, Singapore-2012,
 3. Jaspreet Singh Kochhar -National University of Singapore-2013.
 4. Ruchi Tiwari- Indian Institute of Technology, School of EEE, Delhi, India- 2014.
 5. Lim Chun Ping – Nanyang Technological University, School of MAE-2015.
 6. Li Hairui- National University of Singapore – Department of Pharmacy – 2016
 7. Rebecca Soffe –School of Engineering, Royal Melbourne Institute of Technology (RMIT), Australia-2017
 8. Peter Thurgood –School of Engineering, Royal Melbourne Institute of Technology (RMIT), Australia-2018
 9. Lim Seng Han- National University of Singapore – Department of Pharmacy (2018)
- External evaluator Master thesis**
 1. Michael Kurdzinski–School of Engineering, Royal Melbourne Institute of Technology (RMIT), Australia (2017)
- External evaluator Qualification Exam PhD**
 1. Jaspreet Singh Kochhar – National University of Singapore – Department of Pharmacy (2010),
 2. Li Hairui- National University of Singapore – Department of Pharmacy (2013, 2016),
 3. Himanshu Kathuria- National University of Singapore – Department of Pharmacy (2015, 2017).
 4. Lim Seng Han- National University of Singapore – Department of Pharmacy (2016)
- Undergraduate students**
 - FYP co-supervisor: 2006 (together with A/P Francis Tay - NUS): Ong Poh Lam, Ong Yan Ying, Chan Shen Jau; 2007(together with A/P Francis Tay – NUS): Maria Ong and Pan Yang; 2007 (together with A/P Daniel Poenar – NTU): Eun Tan Yu; 2008 (together with A/P Francis Tay – NUS): Hoirul Ismail B Ya'Akop
 - IBN industrial attachment students (6 month): Jenny Putri Halliman (NTU)- 2012, Anik Islam Badhan (NUS)-2015
 - JC student: Zhao Feiyu (Nanyang Girls' High School), project "Nanoparticles synthesis using microfluidics"- Finalist in 2017 @ Singapore Science and Engineering Fair

PERSONAL SKILLS

Mother tongue(s)

Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	A2	A2	A2	A2	A2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Computer skills

- Proficiency in using L_EDIT & Solidworks computer assisted design for layout fabrication
- Proficiency in using COMSOL Multiphysics® development and simulation software package

Communication skills

- Good knowledge in using MS OFFICE, preparing presentations in Power Point, using the Excell datasheets etc

- Good communication skills gained through project manager experience, laboratory and cleanroom management, interaction with student during different teaching programs, interaction with industrial partners or clinicians

Organisational / managerial skills

- Lead different teams (industry and research) as previous mention,

Job-related skills

- Expertise in design, production and maintenance for electronic, electrical and electro-mechanic equipment; including planning the logistic support for highly complex electronic and electromechanical systems.
- Expertise in smart greed development as well as good knowledge of Internet of Things conceptual design
- Expertise in the management of production and maintenance facilities.
- Expertise in operating, troubleshooting / maintenance for radio and wire communication equipment.
- Expertise in image acquisition, analysis and pattern recognition.
- Proficiency in electromagnetic wave measurements.
- Expertise in troubleshooting and maintenance of computer hardware.

Other skills

- Good knowledge on European, Asian and Middle East culture and history.
- Good Writing and Presentation Skills

EXECUTIVE SUMMARY

- **Expertise in:** microfluidics, micro & nanofabrication, bioengineering, biophysics, lab-on-a chip.
- **Lead and work on different projects related to MEMS, BioMEMS, Bioengineering,**
- 100 journal articles (85 in peer review journals), 35 invited, keynote, plenary talks or seminars at international conferences, universities or research institutes, 119 paper presented at international conferences – please refer to the attached list of publications.
- **Member of Honor of the Academy of Romanian Scientists** (from June 2013)
- **Member of the Romanian National Council for Attesting Titles, Diplomas and Certificates**(2016-2018)
- **Member of the “Editorial board”:**
 - Annals of the Academy of Romanian Scientists, Series on Science and Technology of Information (2009-present);
 - Informacije MIDEEM-Journal of Microelectronics, Electronic Components and Materials – Slovenia (2012);
 - Journal of Fluids /Hindawi (2013-2017);
 - Transactions on Fluid Mechanics/WSEAS (2013-2015).
 - IEEE Transactions on NanoBioScience (2020)
- **Guest Editor** of a Special Issue in “Micromachines”(2019- Nanoparticles on microfluidic plarforms) with Dr G.Tresset (CNRS) and Luke Lee (Berkeley/Harvard)
- **Referee reviewer** for 63 scientific journals: ACS Advanced Materials & Interfaces, Advances in High Energy Physics, AIP Advances, Analytical Chemistry, Analytical and Bioanalytical Chemistry, Applied Sciences (MDPI), Bioengineering (MDPI), Biofabrication, Biomicrofluidics, Biomedical Physics and Engineering Express, Biotechnology, BioTechniques, Chemica Oggi-Chemistry Today, Colloids and Surfaces A: Physicochemical and Engineering Aspects, Current Analytical Chemistry, Current Applied Physics, Current Drug Delivery, ECS Journal of Solid State Science and Technology, Electrophoresis, European J. Physics- Applied Physics, Expert Opinion On Drug Safety, Frontiers in Nutrition, Frontiers in Bioengineering, IEEE Sensors, Informacije MIDEEM, Int. J. of Environmental Analytical Chemistry, Int. J. of Physical Sciences, Int. J. of Molecular Science, J. of Bioengineering, J. of Biological Engineering, J. of Electrochem. Soc., J. Electrical Engineering and Electronic Technology (JEEET), J. Electrostatics, J of Microelectromechanical Systems (JMEMS), J. of Fluids, J. Micromech. & Microeng., J. Nanoengineering & Nanosystems, J. Nanomaterials, J. Optoelectronics and Adv. Mat., J. Physics: Condensed Matter, J. Physics D: Applied Physics, J. Vacuum Science and Tech. A, J. Vacuum Science and Tech. B, J. od Visual Experiments (JOVE), Lab on a Chip, Microelectronic Engineering, Microsystem Technologies, Microfluidics & Nanofluidics, Micro & Nanosystems, Proc. of the Institution of Mechanical Engineers-Journal of Nanoeng. & Nanosystems, RSC Advances, Scientific Reports, Sensors & Actuators A: Physical, Sensors & Actuators B: Chemical, Sensors Journal (MDPI), Sensors and Materials, Smart Materials Research, Thin Solid Films, Therapeutic Delivery, Thermal Science, Trends in Analytical Chemistry, Water Research.

- **External reviewer (grant applications):** The Innovation and Technology Commission, (Hong Kong), QNRF (Qatar National Research Fund), ASTAR (Singapore), National Science Center -OPUS founding scheme (Poland), UEFISCDI (Romania), Swiss Cancer League.
- **3 Best Paper Awards** for papers presented at international conferences.
- **Member** of the "Scientific Committee" and "Session Chair" at different conferences
- **Figures of merit @20/01/2020:** (1) ISI Thomson: 2147 citations/122 documents, H-index: 30 (Researcher ID: J-8986-2019); (2) SCOPUS: 2477 citations/130 documents, H-index: 31 (Author ID: 8571916600) (3) Google Scholar: 3465 citations/170 documents, H-index: 34; Orcid ID: 0000-0001-7042-5248

17.02.2020

Signature
Ciprian Iliescu

