

# Curriculum Vitae

## Personal data

First name: **Charidimos**  
Surname : **Koliakoudakis**  
Date of birth: May 4<sup>th</sup> 1978  
Nationality: Greek  
Military Service: Fulfilled (2003-2004)  
Affiliation: Microelectronics Research Group (MRG)  
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## Main Education

2017 **MSc in Environmental Design of Cities and Buildings**, School of Science & Technology, Hellenic Open University. Specialization: Bioclimatic Architecture. Thesis: "*Environmentally Friendly Technologies Incorporated in Public Buildings Based on Renewable Resources, Focusing on the Use of Photovoltaic Power Systems*"

2016 **Certificate of Pedagogical & Technological Teaching Competence**, School of Pedagogical and Technological Education (ASPETE) of Athens. Thesis: "*Educational Software, Computer Applications Developed for the Purpose of Teaching and Learning*"

2015 **MSc in Photonics & Nanoelectronics**, Dpt. of Physics, University of Crete. Thesis: "*Fabrication and Characterization of Cr-based Schottky Diodes on n-Type 4H-SiC*"  
**Diploma in Electrical and Computer Engineering**, Recognition of Studies from DIKATSA (No: Act. 8-338/2005) and Degree Compliance with the Electrical and Computer Engineering School of National Technical University of Athens (NTUA)

2002 **MSc in Technologies for Broadband Communications**, Dpt. of Electronic and Electrical Engineering, University College London (UCL). Thesis: "*Ultra Wide Band Radio Communication Systems*"

2001 **Degree of Bachelor of Engineering in Electronic and Electrical Engineering**, School of Electronic and Electrical Engineering, University of Leeds of United Kingdom. Thesis: "*Design and Fabrication Microwave PIN Diodes*"

## Work & Research Experience

07/2018 – present **Scientific-Engineering Technical Assistant** (Definite duration contracted employment), MRG/IESL/FORTH.  
– *Design, Fabrication & Characterization of Thermoelectric Materials and Thermoelectric Coolers (TECs) for power electronics based on Gallium Nitride (GaN).*  
– *Build and Maintain the Websites of GSRT Projects: «EINSTEIN» and «RADAR».*  
– *Maintain the Website of the Greek Scientific Non-Profit Company MICRO & NANO.*

12/2017 – 06/2018 **Teacher of Electrical Engineering and Computer Science** (Definite duration contracted employment), State Secondary School of Heraklion, Greek Ministry of Education, Research and Religious Affairs.

11/2016 – 06/2017 **Electrical Engineering Teacher** (Definite duration contracted employment), State Secondary School of Rethymnon, Greek Ministry of Education, Research and Religious Affairs.

11/2012 – 11/2017 **Scientific-Engineering Technical Assistant** (Contracted work), MRG/IESL/FORTH.

- *Design, Fabrication and Characterization of Thermoelectric Materials and Devices.*
- *Thin Film Heat Transfer Performance on Polymer Composites (Epoxy), Thermal Testing and Reliability Analysis.*
- 05/2011 – 10/2012 **Scientific-Engineering Technical Assistant** (Definite duration contracted employment), MRG/IESL/FORTH.
- 09/2010 – 11/2010
- 09/2009 – 06/2010 – *Design, Fabrication and Characterization of Thermoelectric Materials and Thermoelectric Generator Devices (TEGs).*
- 01/2006 – 12/2008 **Research Engineer Assistant** (Definite duration contracted employment), Technical University of Crete – Research Committee, Special Research Funds Account.
  - *Development of 4H-Silicon Carbide (SiC) MESFETs Transistors for Radio Frequency Applications*, “*Modelling and Characterization of RF and Microwave Power Transistors*”.
- 08/2004 – 12/2005 **Scientific-Engineering Technical Assistant** (Definite duration contracted employment), MRG/IESL/FORTH.
  - *On Wafer (Cascade Prober) DC, CV and RF (HP8510B) Measurements on Semiconductor Devices.*

### **Teaching Experience**

- 09/2005 – 06/2015 **Teaching Assistant at Laboratory Lessons** (Definite duration contracted employment), Dpt. of Informatics Engineering, Technological Educational Institute of Crete.
  - Courses: *Digital Design, Microelectronics, Introduction to Telecommunications, Mobile and Personal Communication Networks, Digital Signal Processing.*
- 10/2007 – 06/2008 **Teaching Assistant at Laboratory Lessons** (Definite duration contracted employment), Dpt. of Electrical Engineering, Technological Educational Institute of Crete.
  - Courses: *Electronics II, Fundamental of Electronics.*

### **Participation in the following Research Projects**

- «AENAO» KRIPIS II, GSRT
- «DECHAD» Bilateral Greece-China Collaboration Project, GSRT
- «PROENYL» KRIPIS I, GSRT
- «EINSTEIN» Bilateral Greece-Russia Collaboration Project – Experimental and Theoretical Studies of Physical Properties of Low Dimensional Quantum Nano-Electronic Systems
- EPAnEK 2014-2020 Competence – Entrepreneurship – Innovation – «RADAR» - Heterogeneous 3D Integration Employ Disruptive Nanotechnologies for the Next Generation of Smart Power RF T/R Modules, Research – Create – Innovate, Co-financed by Greece and the European Union
- ENIAC – «NANOCOM» – Micro and Nano Technologies Based on Wide Band Gap Materials for Future Transmitting Receiving and Sensing Systems
- FP7 – «SMARTPOWER» - Smart Integration of GaN & SiC High Power Electronics for Industrial and RF Applications
- FP7 – «NANOTEC» – Nanostructured Materials and RF-MEMS RFIC/MMIC Technologies for Highly Adaptive and Reliable RF Systems
- FP7 – «NANORF» - Carbon Based Smart Systems For Wireless Applications
- Advanced MEMS For RF and Millimetre Wave Communications «AMICOM» FP6 – NoE

### **Technical Skills**

- Optical Lithography: Karl Suss MA6, MJB3
- Reactive Ion Etching (RIE) & Inductively Coupled Plasma (ICP) Nano-Patterning
- Vacuum Depositions Techniques: Thermal and Electron Beam Evaporation Systems, Sputtering
- Wet Etching Techniques
- Wafer Cleaning Techniques, Dry/Wet Oxidations, Annealing, Wire Bonding, etc.
- Lapping – Polishing Techniques

- High precision Dicing and scribing of wafers

### **Material/Device Characterization**

- Microwave Characterization
- Electrical Measurements & Characterization
- Pump Probe Technique
- Hall Effect characterization

### **Computer Skills for Engineering**

ORIGIN	Data Analysis
C	Programming Language
Mathematica	Modelling of Mathematical Formulas & Simulation
Python	Programming Language
Pascal	Programming Language
MATLAB	Programming Language for Engineers
LabVIEW	Instrument Control Programming & Data Acquisition
CleWin,	CAD based Photolithographic Mask Design Software
Photoshop	Imaging & Photo Editing Software Application
AutoCAD	Design and Drafting Software Application
Microsoft Project	Project Management
WordPress	Open-Source Content Management System (CMS)
Network Installation	– Operating Systems (Windows, Linux, macOS)

### **Languages**

Greek (native language), English (proficient user), German (intermediate)

### **Conferences – Schools**

- “GraphEL” European Conference/Workshop on the Synthesis, Characterization & Application of Graphene, September 2012, Mykonos Greece.
- 19th European Workshop on Heterostructure Technology, October 2010 Fodele, Crete, Greece.
- 9<sup>th</sup> International Symposium on RF-MEMS & RF Microsystems-MSWAVE-2008 (July 2008 – Heraklion, Crete, Greece).
- 3rd International Conference on Micro-Nanoelectronics, Nanotechnology & MEMs, (November 2007 – Athens, Greece).
- “TARGET” Winder School, Microwave Transistors: Materials & Devices, University of Jena, (2006 - Jena, Germany).
- “AMICOM” 2<sup>nd</sup> Summer School, the European Network of Excellence on RF MEMS & RF Microsystems, (2005 - Sinaia, Romania).
- “TARGET” Winder School, “Linear Power Amplifier Design & Wireless Systems”, (2005 – Istanbul, Turkey).
- “TARGET” Winder School, “RF Device Characterization & Modelling”, (2005 – Vienna, Austria).
- “TARGET” 1<sup>st</sup> Summer School, “Microwave Transistors: Materials & Devices”, (2004 – Analipsi, Crete).
- “AMICOM” 1<sup>st</sup> Summer School, the European Network of Excellence on RF MEMS & RF Microsystems, (2004 - Analipsi, Crete).
- “TARGET” Tutorial on Power Amplifier: Design & Linearization, (2004 – Rome, Italy).

### **Professional Associations**

- Member of the Technical Chamber of Greece (TEE-TCG)

### **Personal Interests**

- Photography, Music, Sports (biking, running, snooker), Cinema