



Dr. IMEN SALAH MASSOUDI

ASSISTANT PROFESSOR

Personal Data

Nationality | Tunisian

Date of Birth | 10 January 1983

Department | Physics

Official IAU Email | ismassoudi@uod.edu.sa

Office Phone No. | 37479

Language Proficiency

| Language | Read | Write | Speak |
|----------|------|-------|-------|
| Arabic | √ | √ | √ |
| English | √ | √ | √ |
| Others | √ | √ | √ |

Academic Qualifications (Beginning with the most recent)

| Date | Academic Degree | Place of Issue | Address |
|------|-----------------|------------------------|--|
| 2013 | PhD | University of Monastir | University of Monastir- 5000 Monastir- Tunisia |
| 2008 | Master | University of Monastir | University of Monastir- 5000 Monastir- Tunisia |
| 2006 | Bachelor | University of Monastir | University of Monastir- 5000 Monastir- Tunisia |

PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions)

| | |
|--------|--|
| PhD | Optical Characterization by <i>In Situ</i> Spectral Reflectance of Materials Grown by MOVPE |
| Master | Study of <i>In Situ</i> Multi-Wavelength Reflectance of InGaAs Semiconductors Grown by MOVPE |

Professional Record: (Beginning with the most recent)

| Job Rank | Place and Address of Work | | | Date |
|------------------------------------|---|--------------------------------|---------|------------------|
| Researcher and Assistant Professor | College of Science | University of Dammam | KSA | From 15 Sep 2014 |
| Researcher and Assistant Professor | Preparatory Institute for Engineering Studies, EL Manar | University of Tunis - EL Manar | Tunisia | 2013-2014 |



| Job Rank | Place and Address of Work | | | Date |
|--------------------------|---|--------------------------------|---------|-----------|
| Researcher and Assistant | Preparatory Institute for Engineering Studies, EL Manar | University of Tunis - EL Manar | Tunisia | 2009-2013 |
| Researcher and Assistant | Faculty of Sciences of Gabes | University of Gabes | Tunisia | 2008-2009 |

Scientific Achievements

Published Refereed Scientific Researches

(In Chronological Order Beginning with the Most Recent)

| # | Name of Investigator(s) | Research Title | Publisher and Date of Publication |
|---|---|---|--|
| 1 | M. M. Habchi, I. Massoudi, A. Rebey, B. El Jani | Analysis of VIS-NIR spectral reflectance of Bi/GaAs structures grown by MOVPE and UHVE | Journal of Crystal Growth 395 (2014) 30 |
| 2 | I. Massoudi, M. M. Habchi, A. Rebey, B. El Jani | Optical and morphological study of misoriented GaAs substrates exposed to bismuth flow using in situ spectral reflectance and atomic force microscopy | Journal of Crystal Growth 353 (2012) 77 |
| 3 | I. Massoudi, M. M. Habchi, A. Rebey, B. El Jani | Study of surface roughness using in situ spectral reflectance measurements recorded during the MOVPE of InAs/GaAs heterostructures | Physica E: Low-dimensional Systems and Nanostructures 44 (2012) 1282 |
| 4 | I. Massoudi, M. M. Habchi, A. Rebey, B. El Jani | In situ spectral reflectance investigation of InAs/GaAs heterostructure grown by MOVPE | Journal of Electronic Materials 41 (2011) 498 |

Refereed Scientific Research Papers Accepted for Publication

| # | Name of Investigator(s) | Research Title | Journal | Acceptance Date |
|---|--|--|--|-----------------|
| 1 | M. Salem, I. Massoudi, J. Salem and M. Gaidi | Effect of annealing treatment on microstructure and properties of porous silicon combined alumina coating film for silicon solar cells application | Journal of Materials Science: Materials in Electronics | 28-10-2016 |

Current Researches

| # | Research Title | Name of Investigator(s) |
|---|--|--|
| 1 | Advances in the Surface Passivation of silicon for efficiency improvement of silicon solar cells | Main investigator: Imen Massoudi Co-Investigator: Taher Hcin Ghrib , Munerah Abdullah Almessiere, Amal Lafy Alotiaibi Research Assistant : Nada Mohammad Alghamdi |



Contribution to Scientific Conferences and Symposia

| # | Conference Title | Place and Date of the Conference | Extent of Contribution |
|----|--|----------------------------------|---|
| 1 | First Euro-Mediterranean Meeting on Functionalized Materials: EMM-FM 2011, Sousse (Tunisia), 17-21 November 2011 | Tunisia | In situ monitoring of metalorganic vapor phase epitaxy of III-V semiconductors by spectral reflectance, Poster |
| 2 | The First International Conference on "Research to Applications & Markets», Monastir (Tunisia), 23-25 June 2011 | France | Effect of bismuth flow on optical properties of InAs layers grown by MOVPE, Oral |
| 3 | European Materials Research Sciences: E-MRS 2011 Spring & Bilateral Meeting, Nice (France), 09-13 May 2011 | France | Interruption of bismuth flow effect on spectral reflectance of InAs/GaAs structure grown by MOVPE, Poster |
| 4 | European Materials Research Sciences: E-MRS 2011 Spring & Bilateral Meeting, Nice (France), 09-13 May 2011. | France | Properties of misoriented GaAs substrates annealed under bismuth flow in atmospheric pressure metal-organic vapor phase epitaxy reactor, , Poster |
| 5 | International Conference on Nano-Materials and Renewable Energies ICNMRE, Safi (Morocco), 5-8 July 2010. | Morocco | In situ monitoring of surface roughness during the growth of InAs/GaAs heterostructure by metal organic vapor phase epitaxy (MOVPE), , Poster |
| 6 | National Conference on MATERIALS 2010, Mahdia (Tunisia), 04-07 November 2010. | Tunisia | In situ spectral reflectance of misoriented GaAs annealed under bismuth flow, Poster |
| 7 | European Materials Research Society, E-MRS Spring Meeting, Strasbourg (France), 08-12 June 2009. | France | Buffer layer effect on InAs layers grown by Metalorganic Vapor Phase Epitaxy, Poster |
| 8 | 9 th National Research Conference In Physics, Yasmine-Hammamet (Tunisia), 17-20 mars 2008. | Tunisia | Use of the multi-wave reflectivity for the growth of InGaAs layers by MOVPE, Poster |
| 9 | First School of Advanced Physics in the Maghreb (EPAM 2009): | Tunisia | "Nanophysics and Nanomaterials", Oral |
| 10 | Summer University of Science | Tunisia | Experimental Physics |
| 11 | Tunisian Association for Research Teaching | Tunisia | "Pedagogic Communication Techniques", Oral |

Honors and awards

| # | Honors/ Award name | Donor | Date |
|---|--|-------------------------------|-------------|
| 1 | Tunisian National Award in Fundamental Physics | Tunisian Associate of Physics | 30 Jun 2006 |



Membership of Scientific and Professional Societies and Organizations

- Tunisian Society of Physics

Teaching Activities

Undergraduate

| # | Course/Rotation Title | No./Code | Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics) |
|---|-------------------------------|------------|---|
| 1 | Physics I | PHYS201 | Coordinator and Course instructor: The Optics Part |
| 2 | General Physics 1 | PHY101 | Tutorial instructor: Mechanics Part |
| 3 | General Physics 3 | PHY201 | Tutorial and Lectures Instructor |
| 4 | Mechanics and Fluid Mechanics | in Tunisia | Coordinator and Course instructor |
| 5 | General Physics I | in Tunisia | Coordinator and Course instructor |
| 6 | General Physics II | in Tunisia | Course instructor |

Brief Description of Undergraduate Courses Taught: (Course Title – Code: Description)

| | |
|---|---|
| 1 | Physics I- PHYS201: Mechanics, Heat, Fluid Mechanics, Properties of Matter, Geometrical Optics, Electricity and Magnetism,... |
| 2 | General Physics 1- PHY101: Mechanics, Heat, Fluid Mechanics, Properties of Matter,... |
| 3 | General Physics 3- PHY201: Vibrations, Waves and standard waves, superposition, characteristics of sound waves, Doppler effect, temperature, heat, first law of thermodynamics,... |
| 4 | Mechanics and Fluid Mechanics: Newtonian mechanics, Fluid mechanics, Kinetic gas theory,... |
| 5 | General Physics I: Mathematical methods of physics, Calculus-based introduction to the classical mechanics of particles and systems, kinematics, Laws of motion, Conservation principles, Rotational dynamics, Oscillator |
| 6 | General Physics II: Electrostatics, Magneto-static, Optics, Thermodynamic,... |

Postgraduate

| # | Course/Rotation Title | No./Code | Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics) |
|---|--|--------------------|---|
| 1 | Modern Physics | PHY204 | Coordinator and tutorials instructor |
| 2 | Optics | PHY203 | Coordinator and tutorials instructor |
| 3 | Waves | PHY208 | Tutorials instructor |
| 4 | Waves and Vibrations- (old phys. plan) | PHY-old phys. plan | Course and tutorial instructor |
| 5 | Seminar | PHY412 | Course and tutorial instructor |
| 6 | Practical Physics 2 | PHY427 | Course instructor : 2 experiences |
| 7 | Optics and Light Propagation | in Tunisia | Coordinator / Course instructor |
| 8 | Electrodynamics | in Tunisia | Coordinator |
| 9 | Directed Works in Physics | in Tunisia | Coordinator |

Brief Description of Postgraduate Courses Taught: (Course Title – Code: Description)

| | |
|---|---|
| 1 | Modern Physics - PHY204 : Compton effect , photo electric effect, duality characteristic of light, classical physics theory, relative theory and introduction to quantum mechanics ,... |
| 2 | Optics - PHY203 : Nature of light and Geometrical optics,... |



| | |
|---|---|
| 3 | Waves - PHY208 : Basic properties of the waves such as velocity, energy, intensity, and frequency, oscillators, superposition of different type of waves, constructive and destructive interferences,... |
| 4 | Waves and Vibrations- : (old Plan) Basic properties of the waves such as velocity, energy, intensity, and frequency, oscillators, superposition of different type of waves, constructive and destructive interferences,.. |
| 5 | Seminar-PHY412 : Different research topics in physics discussed with students during the whole of the term, and then students will present a final project in each one of the chosen topics,.. |
| 6 | Practical Physics 2- PHY427: 10 experiments in electricity and magnetism, quantum and nuclear physics, solid state physics and classical mechanics,... |
| 7 | Optics and Light Propagation : Ray propagation through optical components, Gaussian beam propagation, Polarization of light, Diffraction, Interference phenomenon,... |
| 7 | Electrodynamics : Electrostatics and magneto-statics in vacuum and in matter, electromagnetic induction, force and energy in electrodynamics, Maxwell's equations, Propagation of electromagnetic plane waves,... |
| 8 | Directed Works in Physics : Applied Numerical Analysis in Physics and Mathematical Methods in Physics,.. |

Course Coordination

| # | Course Title and Code | Coordination | Co-coordination | Undergrad. | Postgrad. | From | to |
|---|-----------------------|-------------------|-----------------|------------|-----------|----------|----------|
| 1 | Physics I, PHYS201 | Dr. Imen MASSOUDI | | √ | | Sep 2016 | Feb 2017 |

Student Academic Supervision and Mentoring

| # | Level | Number of Students | From | to |
|---|--------|--------------------|----------|----------|
| 1 | Master | 1 | Sep 2016 | Jun 2017 |

Supervision of Master and/or PhD Thesis: Ongoing Research Supervision

| # | Degree Type | Title | Institution | Date |
|---|-------------|---|---|---------------|
| 1 | Master | Synthesize and Characterization of Rare-Earth Effect on YAG Phosphor for Conversion Blue Light to White Light | College of Science – University of Dammam | From Sep 2016 |

Administrative Responsibilities, Committee and Community Service (Beginning with the most recent)

Committee Membership

| # | From | To | Position | Organization |
|---|----------|-------------|-------------|--|
| 1 | Sep 2015 | Actual date | Coordinator | The Development of Physics Program Committee |
| 2 | Sep 2015 | June 2016 | Member | The Academic Advising committee |
| 3 | Jan 2015 | June 2015 | Coordinator | The Department Research Committee |
| 4 | Sep 2014 | Jan 2015 | Member | The Department Examining Committee |



Memberships in Academic Programs

| # | From | To | Institute | Academic Program |
|---|--------------|--------------|----------------------|---|
| 1 | 07 Jun 2015 | 09 July 2015 | University of Dammam | Saudi Aramco Research Science Institute SA-RSI 2015 |
| 2 | 17 July 2016 | 20 Aug 2016 | University of Dammam | Saudi Aramco Research Science Institute SA-RSI 2016 |

Volunteer Work

| # | From | To | Type of Volunteer | Organization |
|---|------------------|-----------------|--------------------|---|
| 1 | 10/6 /1436 H. | 13/6/1436 H. | Member of the Jury | The Sixth Scientific Conference for Students of Higher Education, Kingdom of Saudi Arabia |

Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

| | |
|---|--|
| 1 | User of Microsoft Office (Word, Excel, Access, Power Point), Origin, Winelli, etc. |
| 2 | Programmer of MATLAB |

Last Update

29/11/2016