## **Hind ABDELLAOUI**

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19-03-1987

☑: Sidi Maarouf, Casablanca



### PROFESSIONAL Profile

- Ph.D. in Mechanical Engineering, Composite and nanocomposite materials,
- Co-Founder of Moroccan Nanotech Corporation (MONACOR), Green engineering startup,
- Professor of Mechanical Engineering, Entrepreneurship and Quality Management (ISO 9001) with 9+ years of experience in the University and engineering school.
- Scientific researcher with 10+ of R&D experience in the composites and nanocomposites, natural fibers, nanocellulose extraction, manufacturing process, process scalability, etc.
- Experience of 2 years with the incubation and start-up ecosystems,
- Enthusiastic, entrepreneurial mindset, strong initiative, self-motivated.

#### PROFESSIONAL EXPERIENCES

#### Since 2022: Part time professor

- Location: National School of Mines ENIM- Rabat
- Teaching: Entrepreneurship and Innovation

## Since 2022: Venture Explorer Mentor- UM6P/MIT Sandbox

• Mentoring of the seed entrepreneurs in terms of customer discovery, Lean Business model, etc.

# 01/2020-08/2023: Postdoctoral fellow in Polymer synthesis, polymer blends, nanocomposites, nanocellulose

- Location: Supra-Molecular Group (SNG), UM6P Benguerir
- Achievement:
  - Process scalability, Process cost calculation (CAPEX/OPEX)
  - Entrepreneurship: Customer discovery, Market study, Identification of project needs (raw materials, local, equipment, etc.), Preparation of Business model and Business plan of projects, Seeking and negotiating with the clients/suppliers of different equipment and products, Seeking investors, financial partners, national and international fund programs,
  - Programs: writing and pitching in both languages English and French, leading and following up the programs

#### 2016-2020: Permanent Professor of Mechanical engineering

- Location: Moroccan School of Engineering Sciences EMSI- Rabat
- Teaching: Mechanics of Deformable Solids, Resistance of Materials RDM, Material Sciences, Plate and Shell mechanics, Quality Management System.
- Practical work: Fluids Mechanics, Mechanical characterization (traction, compression, flexion, torsion).
- Supervising: graduation projects, company internships, end-of-year projects for industrial and civil engineering students,
- Jury member of graduation project defenses of the students in the last year of industrial engineering.

#### 2013-2015: Financial education trainer

- Location: Mohammed VI Center for Support and Solidarity Microfinance
- Mission: train young people in budgeting, savings and debt management.

#### 2012 -2015: Junior Consultant in Entrepreneurship

- Location: Casa Mubadara REEM Casablanca
- Mission: Accompanying the entrepreneurs for their business

#### 2011-2014: Part-time Professor

- Location: Faculty of Sciences Ain Chok Hassan II University Casablanca
- Teaching: Entrepreneurship

## 2011-2013: Part-time Professor

- Location: Institute of Sales and Logistics IMVL Casablanca
- Teaching: Quality management.

#### **EDUCATION**

#### 2010-2015: Ph.D. in Mechanical Engineering -Composite materials

- Location: National School of Electricity and Mechanics (ENSEM), Hassan II University- Casablanca
- Thesis topic: Study of the Behavior of Jute Reinforcement under Compressive Stress; Characterization and Prediction of the Mechanical Behavior of Laminate Composites Case of Jute Fibres Reinforced Epoxy Matrix.
- Research Team: Applied research on polymers (ERAP) ENSEM
- In collaboration with: Moroccan Foundation for Advanced Sciences, Innovation and Research (MAScIR) Rabat
- Distinction:
  - ✓ Award of Excellence (2015), ENSEM Hassan II University.
  - ✓ <u>Best Thesis Award</u> (2015), CMEEE Symposium of Civil, Mechanical and Electrical Energy Engineering.

**2008-2010:** Master's Degree in Mechanics Applied to Construction – ENSEM (Casablanca).

2005-2008: Bachelor's Degree in Energy Mechanics, Faculty of Sciences Ben M'sik. Casablanca

2002-2005: Diploma in Experimental Sciences—Moulay Ismail High School, Casablanca

#### ADDITIONAL TRAINING

17-02-2014 to 06-03-2014: Training of junior consultants in Entrepreneurship by the CEFE Approach (15 days)

**07-11-2012 to 09-11-2012:** Training of trainers in Energy Efficiency and Energy Optimization in Industries and the Introduction of the Energy Standard ISO 50001 (3 days).

27-09-2012 to 29-09-2012: Training of trainers in Financial Education (3 days)

#### SCIENCTIFIC ACTIVITIES

**25/26-07-2019:** Member of organizing committee of the international Conference on advanced Technologies for Humanitarian Sciences ICATHS'2019- Rabat, Morocco

08/09-04-2019: Invited speaker at the 1st International UPM-MAScIR-FSR Symposium

"Composites Nanocomposites Materials" (I'Symposite 2019)- Rabat, Morocco

16-19/11-2015: Member of organizing committee of the CMEEE congress- Marrakech, Morocco

During 2015: Supervision of a Company Visit for the benefit of ENSEM engineering students.

16-22/11-2011: Doctoriales (1st edition), Mohammedia- Morocco.

✓ <u>Distinction</u>: 3rd award the best innovative project competition.

**0911/02-2011**: Thematic School ECOMAC-ECOMAT -, Bouznika - Morocco Theme "Renewable Energy, Materials and Technologies"

#### PROFESSIONAL INTERNSHIPS

#### 03-07/2014: PhD Internship

 Location: Center for Composites and Nanocomposites, Moroccan Foundation of Advanced Sciences, Innovation and Research. MAScIR – Rabat.

#### 03-07/2010: Graduation internship – Master degree

- Location: Laboratory of Characterization and control of materials (LCCM), ENSEM - Casablanca
- Mission: Production and Mechanical Characterization of Alfa fibres reinforced Polyester composites.

#### 09/2009: Functional internship

- Location: National Company of Steel industry (SONASID) Jorf Lasfar
- Mission: Planning and recourse of scrap grinder project by MS Project.

#### 07/2009: Technical Internship

- Location: Public Test and Study Laboratory (LPEE) Casablanca
- Mission: Performing destructive tests on the reinforcing bar and deducing compliance with the adopted standards

#### 07/2008: Observation internship

- Location: Cherifian Office of Phosphate (OCP) Jorf Lasfar
- Mission: Study of a System for Recovering Steam Escaping from the Stack of the Condensate Cover of the Thermal Power Plant.

#### SKILLS AND KNOWLEDGES:

#### **Technical Knowledges:**

- Mechanical engineering: Tribology, wear and lubrication, metallurgy, hydraulics and hydrology, metrology, thermodynamics, thermal transfer, resistance of materials, structural damage, corrosion, fluid mechanics, mechanics of plates and shells, etc.
- Materials: composite and nanocomposite materials, plastics, thermoset and thermoplastic polymers, steel materials
- Manufacturing processes: Composites process optimization, liquid composite molding (LCM), Nanocellulose extraction process, Process scalability

#### Managerial Knowledges:

- Management: Quality management (ISO 9001), Environment management (ISO 14001), Occupational health and safety (ISO 45001), production management, management tools (PDCA, DMAIC, Pareto, Ishikawa diagram, 7 MUDA, 5S, KAIZEN, etc)
- Project Management: GANT and PERT Planning, Project Cost Evaluation,

#### **Computer Skills:**

- Microsoft office (Word, Excel, Power point).
- Software: MS Project, Matlab, ASPEN initiation

## Volunteering and extra activities

Since 2021: Member of Mentor'Elles association,

2015-2016: Member of Injaz Almaghreb association,

2014-2015: Young Minister of Housing and Urban Policy - Parallel Youth Government

2012-2015: Member of the Casa Mubadara Association

2011-2012: Student Entrepreneur of Tomorrow Club (CEED), Hassan II University

#### LANGUAGES:

• **Arabic**: Native speaker

• French: Fluent

• English: Advanced

• Spanish: Beginner

• **Deutsch**: Class in progress

#### **ACTIVITIES AND INTERESTS:**

- Reading: scientific, fiction, philosophical, entrepreneurial books, etc.
- Trekking & mountains climing: Toubkal (4167m), Tiziran (2106m), Tidghin (2456m), Tazekka (2000m), Imesfran (1868m), Moussa (810m), etc.
- Speleology: Wintimdwin and Chaara caves, etc.
- Walking high distance, Swimming practice, quiche paint, meditation, etc.