

Dr. Rafea Saaidia

Ph.D MECANICAL ENGINEERING



CAREER OBJECTIVE

Seeking a challenging career with a progressive organization that provides an opportunity to capitalize my technical skills & abilities in the field of mechanical engineering.

TECHNICAL SKILLS

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| • System use | Linux and Windows. |
| • CAO software | AutoCAD, Solid Works, Cosmos et Gambit. |
| • CFD software | Ansys, FlowWorks simulation, Fluent. |
| • Procreation software | Matlab, Fortran et Turbo Pascal. |

PERSONAL SKILLS

- Excellent written and verbal communication skills
- Highly organized and efficient
- Ability to work independently or as part of a team
- Proven leadership skills and ability to motivate

EDUCATION

Diploma	PhD in Mechanical Engineering. Research Topic – Conversion of SI engine to run with alternative fuels: Bicarburant CNG-H ₂ - gasoline .
Date	January 2019.
Establishment :	National Engineering School of Sfax.
Diploma	Master's Degree in Mechanical Engineering. Research Topic – Study of hydrogen SI engine behaviors.
Date	December 2011.
Establishment :	National Engineering School of Sfax.
Diploma	Master's Degree in Engineering and Management of Energy (EME). Research Topic – Study of a hybrid pumping station.
Date	June 2010.
Establishment :	Faculty of sciences of Gafsa.

Address

Technical college of Bishah,
61922, PB 688, Assir, Kingdom

Date of Birth

February 01, 1980

REFERENCES

www.tvtc.gov.sa

www.researchgate.net/profile/Rafea-Saaidia

<http://www.enis.rnu.tn/>

Diploma	Bachelor degree / Mechanical engineering.
Date	June 2003.
Establishment :	Hight National Engineering School of Tunis. 'ENSIT'

PROFESSIONALS EXPERIENCES

Function:	Technical and Vocational Trainer –Industrial.
Establishment :	Technical college of Bishah - Saudi Arabia.
Principals activities and responsibilities:	<ul style="list-style-type: none"> ▪ Use a practical applied approach and teach courses that are in line with course and program goals to meet the needs and aspirations of the students and the community. ▪ Monitor student progress and take action to support student success. ▪ Develop and utilize various educational technology resources to ensure that effective and innovative instruction methodologies are employed. ▪ Maintain regular office hours in order to advise and assist students. ▪ Organize industrial visit.
Date:	August 2013 / Now.
Function:	Assistant.
Establishment :	Hight institute of applied sciences and technologies of Gafsa (ISSAT) – Tunisia.
Principals activities and responsibilities:	<ul style="list-style-type: none"> ▪ Teach students in Mechanical Engineering. ▪ Supervise of the end of studies projects. ▪ Support and mentor students during internships and work placements. ▪ Serve on faculty committees. ▪ Advise graduate students and perform other academic duties as required.
Date:	2007 / 2013.
Function:	education teacher
Establishment:	Ministry of education.
Principals activities and responsibilities:	<ul style="list-style-type: none"> ▪ Teaching of technical and technological education
Date :	2004/2007
Post occupied in company :	Engineer.
Company:	Tunisian Company of Navigation COTUNAV
Principals activities and responsibilities:	<ul style="list-style-type: none"> ▪ Spare parts supply. ▪ Maintenance and tests in the engine compartment. ▪ Discusses with spare parts suppliers and generate reports and contracts. ▪ Prepare technical document.
Date:	2003/2004

ADDITIONAL QUALIFICATIONS & COURSES

Specialized Courses	<ul style="list-style-type: none"> Numerical resolution method. CNC Machines. Dynamic systems.
Establishment	National Engineering School of Sfax, Tunisia
Programs	<ul style="list-style-type: none"> Safety in training facilities. Occupational Safety in Industrial Establishments. Modern methods of guidance. Training of Trainers TOT.
Establishment	Technical College of bishah-Saudi Arabia.
Subjects taught	<ul style="list-style-type: none"> Thermal Engine CAD Gasoline and diesel fuel system Heat and mass transfert Vibration mechanics Project approach
Others Training course:	<ul style="list-style-type: none"> Sciences and academic research
Date	August 2014
Establishment	Chamber of Commerce Tunisia
	<ul style="list-style-type: none"> Certificate of English for academic purpose
Date	July 2015
Establishment	Horizon training center Tunisia

RESEARCHS AND PUBLICATIONS

PUBLISHED ARTICLES

- **R. SAAIDIA** , Jemni Mohamed and M.S. ABID. Simulation and Empirical Studies of the Commercial SI Engine Performance and Its Emission Levels When Running on CNG and Hydrogen Blend.2017. *Energies*. <https://doi.org/10.3390/en11010029>
- **R. SAAIDIA** , Jemni Mohamed and M.S. ABID. Variable intake manifold geometry influence on volumetric efficiency enhancement at gaseous engine starting speeds. November 2020.*Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science* 234(6). DOI: [10.1177/0954408920973129](https://doi.org/10.1177/0954408920973129)

SUBMITTED ARTICLES

- **R. SAAIDIA**, et al. Effect of intake manifold design on SI engine behaviors When Running on CNG and Hydrogen Blend. Applied thermal energy.
- **R. SAAIDIA**, et al. Study of SI engine behaviors When Running on CNG-H2 Blend with cooled intake manifold. International journal of hydrogen energy.

INTERNATIONAL CONFERENCES

- **R.saaidia** , Jemni Mohamed and M.S. ABID. Numerical investigation for design of new intake manifold for spark ignited engine to run with alternative fuels: Gasoline Hydrogen. **CEFD 2013**.
- **R. saaidia** , Kantchev Gueorgui, Jemni Mohamed and M.S. ABID E tude du système d'admission d'un moteur thermique à allumage commandé. **CMMEG 2012**
- Med Brayek, **R.saaidia** , Jemni Mohamed and M.S. ABID. Numerical investigation for design of new intake manifold for spark ignited engine to run with alternative fuels: Gasoline-Hydrogen. **CEFD 2013**.
- M. Brayek , **R.saaidia** M.A. Jemni, G. Kantchev, M.S. Abid, Effect of intake manifold length on the fluid flow, International Symposium on Computational and Experimental Investigations on Fluid Dynamics **CEFD'2013, March 18 20, 2013, Sfax, TUNISIA**.
- M. Brayek **R.saaidia** M.A. Jemni, G. Kantchev, M.S. Abid, Conversion Of Spark Ignition Engine to Use Hydrogen As Fuel, **International Conference on Mechanics and Energy December 22 24, 2016, Hammamet, TUNISIA, ICME2016 127**.
- **R.saaidia** , M.S. ABID. CFD analysis of the effect of H2CNG blend nature on in-cylinder flow. August 2020. Conference: **8th EUROPEAN CONFERENCE ON RENEWABLE ENERGY SYSTEMS ISTANBUL/TURKEY 09-11 June 2020**.
- **R.saaidia** , M.S. ABID. CFD Investigation on piston head geometry effect on in-cylinder flow for Hydrogen Fueled Engine. August 2020. Conference: **8th EUROPEAN CONFERENCE ON RENEWABLE ENERGY SYSTEMS ISTANBUL/TURKEY 09-11 June 2020**.
- **R.saaidia** , Jemni Mohamed and M.S. ABID. Effect of optimized intake manifold geometry on behaviors and emission level of H2CNG fueled engine. August 2020. Conference: **8th EUROPEAN CONFERENCE ON RENEWABLE ENERGY SYSTEMS ISTANBUL/TURKEY 09-11 June 2020**.

CHAPTER BOOK

- Jemni Mohamed, **R. SAAIDIA** Zied Driss and M.S. ABID. CONVERSION OF BUS DIESEL ENGINE INTO LPG GASEOUS ENGINE; METHOD AND EXPERIMENTS VALIDATION; **2017 International Energy and Environment Foundation.**

SCIENTIFICS COMMITTEES

- Member of the **LASEM** ENIS research laboratory
- Member of the International Association of Researchers in Mechanics & Energy (**AICMETunisia**)
- Member of the organization committee at the First Symposium on Computational and Experimental Investigations on Fluid Dynamics **CEFD'2013** in Sfax Tunisia.
- Member of the organization committee of the International Conference on Mechanics and Energy December 2014, TUNISIA, **ICME2014**

