Curriculum vitae

Personal Data

Name: **Hamada Mohamed Abd El-Motalib Ahmed**

Birthday date: **4, Dece, 1983.**

Marital Status: **Married**.

Mobile: +2 **01143287761**

Nationality: **Egyptian.**

Email: **en_hamada83@yahoo.com**, **en_hamada83@jbnu.ac.kr**

Address: **Egypt – Qena.**

Languages: **Arabic (native language) – English [Very Good (IELTS Band6), TOEIC (750)].**

Military service: **Completed in 3/2008.**

Qualifications

1- Bachelor Degree in Mechanical Engineering in June 2006 from Minia University.

Specialty: Mechanical Engineering.

Grade*:* **Very Good** (With Honors degree).

Final Year Project: **Design and Construct of Centrifugal Blower.**

Project Grade: **Excellent**.

2- Master Degree in Mechanical Engineering in October 2011 from Minia University

Master Thesis Title: *Combustion Characteristics of some E gyptian fuels.*

3- Doctoral Degree in Mechanical Engineering in August 2016 from cchonbuk National University, South Korea.

Thesis Title: *Numerical and Experimental Study of Heat Transfer and Bed Flow Charactristics in A Conical Fluidized Bed Reactor*

Job History

o Teaching assistant in Mechanical Power and Energy Engineering Dept., Minia University, Egypt. (From April 2007 until January 2012).

o Assistant Lecturer in Mechanical Power and Energy Engineering Dept., Minia University, Egypt. (From January 2012 until September 2013).

o Ph.D. Student in Mechanical Design Engineering Dept., Chonbuk National University, Korea (From September 2013 until September 2016).

o Lecturer in Mechanical Power and Energy Dept., Minia University, Egypt (From September 2016 till august 2019).

o Postdoctoral research in Mechanical Design Department, Jeonbuk National University, South Korea. (From August 2019 to August 2021).

o Lecturer in Mechanical Power and Energy Engineering Dept., Minia University, Egypt (From September 2021 till now).

Publications

International Journals

Papers from Ph.D. Thesis

1- Hamada M. Abdelmotalib, Mahmoud A.M. Youssef, Ali A. Hassan, Suk Bum Youn, Ik-Tae Im, **Heat transfer process in gas–solid fluidized bed combustors: A review**, International Journal of Heat and Mass Transfer 89 (2015) 567–575.

2- Hamada M. Abdelmotalib, Mahmoud A.M. Youssef, Ali A. Hassan, Suk Bum Youn ,Ik-Tae Im, **Numerical study on the wall to bed heat transfer in a conical fluidized bed combustor**, International Journal of Precision Engineering and Manufacturing, Volume 16, Issue 7, (2015) 1551-1559.

3- Hamada M. Abdelmotalib, Mahmoud A.M. Youssef, Ali A. Hassan, Suk Bum Youn, Ik-Tae Im, **Numerical study on heat transfer in a conical fluidized bed combustor considering particle elasticity,** International Journal of Heat and Mass Transfer 92 (2016) 236–243.

4- Hamada Mohmmed Abdelmotalib, Dong Guk Ko, Ik–Tae Im, **A study on wall-to-bed heat transfer in a conical fluidized bed combustor**, Applied Thermal Engineering 99 (2016) 928–937.

5- Hamada M. Abdelmotalib, Mahmoud A.M. Youssef, Ali A. Hassan, Suk Bum Youn, Ik-Tae Im, **Influence of the Specularity Coefficient on Hydrodynamics and Heat Transfer in a Conical Fluidized Bed Combustor,** International Communications in Heat and Mass Transfer 75 (2016)169-176.

6- Hamada M. Abdelmotalib, Ik-Tae Im, **Three-dimensional modeling of heat transfer and bed flow in a conical fluidized bed reactor**. International Journal of Heat and Mass Transfer 106 (2017) 1335-1344.

7- Hamada Mohmmed Abdelmotalib, Jong Seok Kim & Ik-Tae Im, **A study on heat transfer in a conical fluidized-bed reactor with an immersed cylindrical heater**. Numerical Heat Transfer, Part A: Applications, 71 (2017) 855-866.

Papers from postdoctoral research

8- Hamada Mohmmed Abdelmotalib & Ik-Tae Im, **An Experimental study of Particles Temperature in A Fluidized Bed Using an Inferred Thermography**. Journal of Mech. Science and Technology 32 (9) (2018) 4529-4534.

9- Dong Guk Ko, Hamada Mohamed Abdelmotalib, Ik-Tae Im, Dong Won Im and Suck Ju Yoon1, **Cooling efficiency according to shape changes to the straight ventilation hole in carbon-ceramic brake disks**, International Journal of Automotive Technology 19 (6), 1103−1110 (2018).

10- Zaher Ramadan, Hamada Mohamed Abdelmotalib, and Ik-Tae Im, **Modeling of Epitaxial Silicon Growth From the DCS-H2-HCl System in a Large Scale CVD Reactor**, IEEE Transactions on Ransactions on Semiconductor Manufacturing 31 (3), 363-370 (2018).

11- Mohamed Hamam M. Tawfik, Mohamed Refaat Diab, Hamada Mohmed Abdelmotalib, **An experimental investigation of wall-bed heat transfer and flow characteristics in a swirling fluidized bed reactor**, Applied Thermal Engineering 155, 501–507 (2019).

12- Byung Moon So, Hamada Mohamed Abdelmotalib, Mohamed Y. Hashim and Ik-Tae Im, **Computational study on heat transfer and bed flow according to different regimes of fluidized beds**, Journal of Mechanical Science and Technology 33 (12) (2019) 1~7.

13- Hamada Mohamed Abdelmotalib & Ik–Tae Im, **Simulation study of the effect of the restitution coefficient on inter-phase heat transfer processes and flow characteristics in a fluidized bed**, Numerical Heat Transfer, Part A: Applications , 2019.

14- Mohamed Y. Hashim, Hamada M. Abdelmotalib, Jong Seok Kim, Dong Guk Ko and Ik-Tae Im, A numerical study on gas-to-particle and particle-to-particle heat transfer in a conical fluidized bed reactor, Journal of Mechanical Science and Technology 34 (6), (2020)

15- Mohamed Hamam M. Tawfik, Mohamed Refaat Diab, Hamada Mohmed Abdelmotalib, **Heat transfer and hydrodynamics of particles mixture in swirling fluidized bed**, International Journal of Thermal Sciences 147 (2020) 106134

16- Hamada Mohmed Abdelmotalib, Reza Alidoost Dafsari, Yu Seung-Hwa, Jeekeun Lee, **Computational study of internal flow characteristics of the air induction nozzle**, International Journal of Mechanical Sciences 204 (15) 106578, (2021).

17- Hamada Mohmed Abdelmotalib, Changwook Lee, Yechan Seo, Jeekeun Lee, **A computational study of two-dimensional serpentine nozzle performance with different annular mixer configurations**, International Journal of Mechanical Sciences 208, 106690, (2021).

International Conference

1. Hamada M. Abdelmotalib, Mahmoud A.M. Youssef, Ali A. Hassan, Suk Bum Youn, Ik-Tae Im, Numerical Study on Wall to Bed Heat Transfer in Conical Fluidized Bed Combustor, International Symposium on Green Manufacturing and Applications, (**ISGMA 2014**), June 24 ~ 28, 2014. Paradise Hotel, Busan, Korea.

2. Hamada M. Abdelmotalib, Mahmoud A.M. Youssef, Ali A. Hassan, Suk Bum Youn, Ik-Tae Im, Influence of the Specularity Coefficient on Hydrodynamics and

Heat Transfer in a Conical Fluidized Bed Combustor, The 4th International Conference on Nuclear and Renewable Energy Resources, (**NURER2014**), OCTOBER 26- 29 2014, Sentido Zeynep Resort - Antalya – Turkey.

3. Hamada M. Abdelmotalib, Suk Bum Youn, Ik-Tae Im, An Experimental and Computational investigations on Wall to Bed Heat Transfer and hydrodynamics in Conical Fluidized Bed Combustor, The 6th international Symposium on Advances in Computational Heat Transfer, (**CHT-15**), 25-29 May, Rutgers University, Piscataway, USA.

4. Hamada M. Abdelmotalib, Suk Bum Youn, Ik-Tae Im, Numerical and Experimental study on Bed-wall Heat Transfer in Conical Fluidized Bed Combustor, The17th International Conference on Mechatronics, Electrical and Mechanical Engineering (**ICMEME 2015**), August 24 - 25, 2015, Kuala Lumpur, Malaysia.

5. Hamada M. Abdelmotalib, Suk Bum Youn, Ik-Tae Im, Three-Dimensional Modeling of Heat Transfer in A Conical Fluidized Bed, Proceedings of the First Pacific Rim Thermal Engineering Conference (PRTEC), March 13-17, 2016, Hawaii's Big Island, USA.

6. Hamada M. Abdelmotalib, Min Soo Kim, Chan Woo Park, Ik-Tae Im, Numerical Modeling Study on Heat Transfer in A conical Fluidized Bed Reactor with Immersed Heater, Second Thermal and Fluids Engineering Conference. April 2-5, 2017, Las Vegas, Nevada, USA.

7. Hamada abdelmotalib, Ik-Tae Im, An Experimental Investigation of Particle-Gas Heat Transfer in A Fluidized Bed Reactor, International Conference on Engineering and Applied Science, July 17-19, 2018, Seoul, Korea.

Field of Interest

- Combustion
- Heat transfer
- Numerical Modeling.

- Internal Combustion Engine

- Renewable Energy (Combustion, gasification, and pyrolysis of Biomass)

- Programming languages (**C++ and Fortran 95**)

- Fluid mechanics

- Computational fluid dynamic

Software Skills

- Fluent 6.3 & ANSYS Fluent 16.1

- STAR CMM+

- Matlab 2014

PhD. Graduated Courses

1. Advanced Fluid Engineering

2. Advanced Combustion Engineering

3. Advanced Two-Phase Flow Heat Transfer and Practice

4. Advanced Heat Exchanger Design and Practice

5. Advanced Aerosol Technology

6. Advanced Noise and Vibration Engineering

7. Compressible Flow

8. Micro Fluid

9. Viscous Fluid Dynamics

10. Theory of Combustion Phenomena

11. Convective Heat Transfer

12. Design of Thermal Engineering Systems