

# **SUMIT SAGAR HOTA**

Citizenship: Indian DOB: 02-04-1997

PhD in Thermal and Fluid Engineering

Indian Institute of Technology Palakkad, Kerala, India

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Specializations: Combustion, Heat Transfer, Composite materials

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#### **Motivation**

"An enthusiastic, adaptive and fast - learning scholar, with a board and acute interest in the discovery of new innovative objects and design for human blessings collaborating with scientists from different disciplines to develop new skills and innovative and solve new challenges."

Academic Profile			
Degree	Institute	CGPA	Year
PhD	Indian Institute of Technology Palakkad, Kerala, India	9.0 CGPA	2021-Till now*
M.Tech	Odisha University of Technology and Research (formerly College of Engineering And Technology), Bhubaneswar, Odisha, India	9.49 CGPA	2019-2021
B. Tech	Inistitute of Technical Education and Research, Bhubaneswar, Odisha, India	9.64 CGPA	2014-2018

## **Academic Project Work**

- Title of project : DESIGN AND CONSTRUCTION OF A SOLAR DRYING SYSTEM FOR SERICULTURE (B.Tech.)
- Title of project: ROBUST AND ENERGY EFFICIENT COMPOSITE BRICK USED FOR BUNKER CONSTRUCTION IN DEFENSE FORCE DEPLOYED AT EXTREME CLIMATES(M.Tech.)
- Title of project : FLAME STABILISATION IN GAS TURBINE ENGINE COMBUSTORS(PhD)(currently under progress )

## **Programming and Simulation Proficiency**

Technical Software:

- > OpenFOAM(CFD): Blockmeshing, Refined meshing, Initial and Boundary conditions, reactingFoam solver for combustion, icoFoam solver for CFD.
- ANSYS: Explict dynamics, static structural, steady state thermal, transient thermal and CFD analysis
- ➤ SOLIDWORK: Conventional Machining, Introduction to CAD/CAM,Part Design,Assembly Design,Surface Design, Kinematic and Simulation, Drafting & Detailing
- ➤ CATIA: Conventional Machining, Introduction to CAD/CAM, Part Design, Assembly Design, Surface Design, Kinematic and Simulation, Drafting & Detailing
- MATLAB: MATLAB user interface, commands with scripts writing, Graphical Representation of 2D and 3D, Data Analysis and code generation, Image Processing and visualization

### **Academic achievements**

- i. Dean's list of meritorious student in B.Tech in Mechanical engineering for securing highest CGPA.
- ii. CET MERIT SCHOLARSHIP twice in first and second year, M.Tech in Thermal Engineering for securing highest CGPA.
- iii. University (OUTR, BBSR, ODISHA formerly CET, BBSR, ODISHA) topper in M.Tech-2021.

#### **Patents**

- 1. AN INSULATIVE BULLETPROOF COMPOSITE BRICK FOR BUNKER filed in India (Secured 1st rank under confidential patent for defence 2021) (1st inventor) Patent application Number: 202131027196, Date of Applying: Jun 2021
- 2. EARTHQUAKE RESISTANT AND ENERGY EFFICIENT COMPOSITE BRICK AND METHOD OF PREPARATION THEREOF filed in India (AWARDED) (1st inventor)
  Patent application Number:202231010295, Date of applying: Feb 2022, Publication Date: 11/03/2022, Journal No.:10/2022, Part: 1,Page number:444, <a href="https://search.ipindia.gov.in/IPOJournal/Journal/Patent">https://search.ipindia.gov.in/IPOJournal/Journal/Patent</a>
- **3.** COMPOSITE SOLAR PANEL COVER AND METHOD OF FORMATION THEREOF filed in India (*AWARDED*) (*1<sup>st</sup> inventor*)Patent application Number: **202231030402**, Date of applying: May 2022, Publication Date: 24/06/2022, Journal No. 25/2022, Part: 1,Page number: 364, <a href="https://search.ipindia.gov.in/IPOJournal/Journal/Patent">https://search.ipindia.gov.in/IPOJournal/Journal/Patent</a>
- **4.** BULLET PROOF, ENERGY EFFICIENT, COST-EFFECTIVE COMPOSITE GLASS AND PREPARATION THEREOF filed in India (accepted by NRDC India (National Research Development Corporation) organization) (1st inventor)Patent application Number: 202231040081

  Date of applying: Jul 2022. (N.B. The above patent is the cheapest bullet proof glass against 0.50 BMG bullet at 928-1500 m/s muzzle speed and energy efficient glass till date invented by NRDC report 2022.)

I, hereby declare that the above-mentioned information is true to the best of my knowledge.

Date: 28/08/2022 **References** 

1. Dr. Krishna Sesha Giri Assistant Professor Department: Mechanical Engineering IIT Palakkad, Kerala-678623, India.

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2. Dr. Sudhansu Sekhar Sahoo

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