



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

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	Institute of Technical Education and Research, Bhubaneswar, Odisha, India	9.64 CGPA	2014-2018

Course works in PhD (IIT PALAKKAD)

SI.NO.	COURSE NAME	GRADES(Grade points out of 10)	CREDITS(Total 12 credits)
1	Fluid Dynamics(ME5621)	A (9)	3
2	Computational Fluid Dynamics(ME5614)	B (8)	3
3	Mathematics for Engineers (ME5011)	A (9)	3
4	Combustion(ME5619)	S (10)	3
5	Research Methodology(GN6001)	P(NA)	0(zero credit course)

Academic achievements

- Dean's list of meritorious student in B.Tech in Mechanical engineering for securing highest CGPA.
- CET MERIT SCHOLARSHIP twice in first and second year, M.Tech in Thermal Engineering for securing highest CGPA.
- University (OUTR, BBSR, ODISHA formerly CET, BBSR, ODISHA) topper in M.Tech- 2021.
- Awarded prestigious PMRF(cycle 9 May 2022) fellowship

Programming and Simulation Proficiency

Technical Software: OpenFOAM, ANSYS, SOLIDWORKS, CATIA, MATLAB etc.

Institute Teaching Assistantship(T.A.)

1. Engineering Thermodynamics (ME1020) course for January - May Semester 2022.
2. Foundations of Fluid Mechanics (ME2010) course for August - December Semester 2022.
3. Mechanical Lab. -3 (ME4170) (with the subject name: Valve timing diagram in IC engines) Lab. course for August - December Semester 2022.
4. Applied Mechanics Lab.(ME2140) (with experiment name Hydrostatic pressure & determination of metacentric height) January - May 2023.
5. Combustion and IC engine (ME3030) course for August - December Semester 2023.
6. Fluid Mechanics Theory and Practice (ME2010) January - May 2024.
7. B. Tech. Project Phase - 1 (ME 4110) for August - December Semester 2024.
8. Thermal Engineering Lab (ME3110) for January - May 2025.

PMRF NPTEL Teaching Assistantship(T.A.)

1. Turbulent Combustion: Theory And Modelling(noc23-me10) by Prof. Ashoke De Sir IIT Kanpur.
2. Introduction To Airbreathing Propulsion (noc23-ae11) by Prof. Ashoke De Sir IIT Kanpur.
3. Turbulent Combustion: Theory And Modelling(noc24-me64) by Prof. Ashoke De Sir IIT Kanpur.
4. Introduction To Airbreathing Propulsion (noc24-ae21) by Prof. Ashoke De Sir IIT Kanpur.
5. Turbulent Combustion: Theory And Modelling(noc25-me79) by Prof. Ashoke De Sir IIT Kanpur.

Publications and Patents

1. Patent Title: AN INSULATIVE BULLETPROOF COMPOSITE BRICK FOR BUNKER filed in India (Secured 1st rank under confidential patent for defense 2021) (1st inventor) Patent application Number: 202131027196, Date of Applying: Jun 2021
2. Patent Title: EARTHQUAKE RESISTANT AND ENERGY EFFICIENT COMPOSITE BRICK AND METHOD OF PREPARATION THEREOF filed in India (AWARDED & GRANTED) (1st inventor)
Patent application Number:202231010295, Patent number: 406468, Date of applying: Feb 2022, Publication Date: 11/03/2022, Journal No.:10/2022, Part: 1,Page number:444, <https://search.ipindia.gov.in/IPOJournal/Journal/Patent>
3. Patent Title: COMPOSITE SOLAR PANEL COVER AND METHOD OF FORMATION THEREOF filed in India (AWARDED & GRANTED) (1st inventor)Patent application Number: 202231030402, Patent Grant Number: 415426, Date of applying: May 2022, Publication Date: 24/06/2022, Journal No. 25/2022, Part: 1,Page number: 364, <https://search.ipindia.gov.in/IPOJournal/Journal/Patent>
4. Patent Title: 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 bulletproof glass against 0.50 BMG bullet at 928-1500 m/s muzzle speed and energy efficient glass till date invented by NRDC report 2022.)
5. Patent Title: PROTECTIVE DUST GUARD FRAME FOR SOLAR PANEL filed in India (AWARDED AND GRANTED) (2nd Inventor) Patent application Number/ Design Patent Grant Number: 374212-001, Date of applying: 15/11/2022, Class: 13-04, Published and Granted date: 03/02/2023, Journal No. 06/2023, Dated 10/02/2023, Part: 3 (Designs), Page number: 44, <https://search.ipindia.gov.in/IPOJournal/Journal/Patent>
6. Patent Title: WATER EFFICIENT SENSOR CUM MECHANICAL BASED COMMODOE filed in India (AWARDED AND GRANTED) (1st Inventor) Patent application Number/ Design Patent Number: 390330-001, Date of applying: 14/07/2023, Published and Granted date: 27/09/2023, Journal No is 39/2023, Journal Date is 29/09/2023,Part: 3 (Designs), Page number: 110, <https://search.ipindia.gov.in/IPOJournal/Journal/Patent>
7. Patent Title: MULTIPURPOSE CONSTRUCTIONAL BLOCK AND METHOD OF MANUFACTURING THEREOF filed in India (AWARDED) (2nd Inventor) Patent application Number: 202431011399, Date of applying: 19/02/2024, Published date: 08/03/2024, Journal No. 10/2024, Date:08/03/2024, Part: 3, Page Number: 26, <https://search.ipindia.gov.in/IPOJournal/Journal/Patent>
8. Conference Title: Numerical simulation of Sandia D flame using optimized k-ε transport model-based Eddy Dissipation Concept, Authors: Sumit Sagar Hota, Krishna Sessa Giri, Paper ID: 123, 14th Asian Computational Fluid Dynamics Conference (ACFD 2023), International Conference at HAL Management Academy Bengaluru India from 30/10/23 to 02/11/23.
9. Patent Title: TEXTILE FIBRE WASTE BASED REUSABLE COMPOSITE SURFACE COVERING PANEL AND METHOD OF MANUFACTURING THEREOF filed in India (AWARDED) (1st Inventor).Patent application Number: 202431078937,Date of applying: 17/10/2024,Published date: 20/12/2024,Journal No. 51/2024,Date:20/12/2024,Part: 1,Page Number: 684, <https://search.ipindia.gov.in/IPOJournal/Journal/Patent>

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

Sumit Sagar Hota

Date : 18/05/2025

Name : Sumit Sagar Hota

References

1. Dr. Krishna Sessa Giri
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2. Dr. Sudhansu Sekhar Sahoo
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751029,India
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