

Resume

Dr. Sunil Kumar Yadav

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Objective:

Looking for an opportunity to work in an institution which would provide a good platform to utilize research & administration skills along with the ample environment for research and personal growth.

Work Experience:

Worked as Lecturer at K.N. Modi University, Jaipur, Rajasthan from 13th July, 2010 to 1st June, 2011.

Worked as Assistant professor at KIET Ghaziabad, U.P. from 12th March, 2020 to 12th June, 2020.

Academic Profile:

- Completed Ph.D. in the Department of Mechanical Engineering from Indian Institute Technology (BHU), Varanasi, India (**Ph.D. Oral Presentation date: 14th August, 2020**).
- Completed Master of Technology in Mechanical Engineering (Thermal & Fluid Engineering) with 8.42 CGPA from National Institute of Technology, Jamshedpur in 2013.
- Completed Bachelor of Technology in Mechanical Engineering with 70.03% marks from K.N.G.D Modi Engineering College, Ghaziabad affiliated with Uttar Pradesh Technical University, Lucknow in 2010.

Area of Research Interests:

- Nuclear Energy
- Heat Transfer and Fluid mechanics
- Aerosol Science
- Power Plant

Publications and Patent:

International Journals: 05

1. **S. K. Yadav**, A. Khan, and P. Shukla, "Development of a high temperature facility for study of aerosol emission behavior of combustible materials," Measurement, vol. 139, pp. 308–316, 2019 (**SCIE indexed, Impact factor – 2.83**).

2. **S. K. Yadav**, Manish Joshi, Yashasvi Sharma, P. Shukla, Ankur Kaushik, B.K. Sapra, R. S. Singh “Physico-chemical characteristics of graphite aerosols generated during postulated air ingress accident,” *Annals of Nuclear Energy*, vol. 132, pp. 100–107, 2019 (**SCI indexed, Impact factor – 1.57**).
3. **S. K. Yadav**, M. Kumar, Y. Sharma, P. Shukla, R. S. Singh, and T. Banerjee, “Temporal evolution of submicron particles during extreme fireworks,” *Environmental Monitoring and Assessment.*, vol. 191, pp. 576, 2019 (**SCI indexed, Impact factor – 1.96**).
4. Sumit Kumar Pandey, Pramod Kumar Vishwakarama, **Sunil Kumar Yadav**, Prashant Shukla, Anchal Srivastava “ Multiwalled Carbon Nanotube Filters for Toxin Removal from Cigarette Smoke” *ACS Applied Nano Materials*, 3(1) (**SCI indexed, Impact factor – 7.0**).
5. **S. K. Yadav**, P. Shukla, Manish Joshi, A. Khan, B.K. Sapra, A.K. Jha, R.S. Singh “Emission characteristics of ultrafine particles from bare and Al₂O₃ coated graphite for high temperature applications” *Sci. Rep* **10**, 14595 (2020) (**SCI indexed, Impact factor – 5.0**).

Communicated publications: 02

1. **S. K. Yadav**, P. Shukla. “Characteristics of Aerosol Generated by Burning of Graphite at Different Heating Conditions” *Annals of nuclear energy* (**Revision 1 submitted**). (**SCI indexed, Impact factor – 1.57**).
2. **S. K. Yadav**, P. Shukla “Isokinetic and anisokinetic sampling influence in the assessment of particle size distribution of Nano aerosols” *Advance powder technology* (**Communicated**) (**SCI indexed, Impact factor – 4.2**).

International Conferences: 02

1. M. Kumar, **S. K. Yadav**, Y. Sharma, P. Shukla, R. S. Singh, T. Banerjee, 2018, New particle formation and growth during two extreme events: Fireworks and biomass burning. International Conference on Atmospheric Composition and Climate Change in Asia, 27-28 March 2018, Bangi, Malaysia.
2. **S. K. Yadav**, P. Shukla “Isokinetic and Anisokinetic Sampling Effect in the Evaluation of particle size distribution of aerosol” IHMTC-2017, Hyderabad.

Conferences /Seminar/Workshops attended: 07

1. Participated in the Conference of “Indian Aerosol Science and Technology Association”, 2014 (IASTA2014), held during November 11-13, 2014 at the Department of Geophysics, Banaras Hindu University, Varanasi.
2. National conference on critical heat flux and multiphase flow jointly organized by IIT BHU and IIT Mumbai, 22nd -23rd Dec. 2018, IIT(BHU), Varanasi.
3. Seminar on Computational Fluid Dynamics, NIT, Jamshedpur (24th December, 2012 to 28st December, 2010).
4. Participate in One-week short term course on "Modeling and Simulation of Renewable Energy Systems" at N.I.T Jamshedpur (18th June, 2012 to 22nd June, 2012).
5. National Seminar on Emerging Trends Higher Education, Dr. K. N. Modi University (Rajasthan), January, 2011.

6. Workshop on CHEMI FEST, KNGD Modi Engineering College, 2009.
7. Workshop on MECH FEST, KNGD Modi Engineering College, 2008.

Patent: 01

1. Title of the Invention: Carbon nanotube filter for toxin removal from cigarette smoke.
Inventors: **Sunil Kumar Yadav**, Dr. Anchal Srivastava, Dr. Prashant Shukla, Sumit Kumar Pandey, Pramod Kumar Vishwakarma
Date of filling of application: 15/07/2019
Application Number: 201911028445A Publication Date: 26/07/2019.

Reviewer

- Reviewer of RSC Advance Journal
- Review board member of International Journal of Astronautic and Aeronautical Engineering

Doctoral Thesis:

Title- **Characterization of Aerosol produced during burning of Graphite**

Objective: The objective of the work is listed below:

- (a) Development of high temperature facility for Graphite burning.
- (b) Study of Aerosol generation and its characterization at different heating condition during burning of Graphite.
- (c) Study of Aerosol generation and its characterization at different heating condition during burning of Alumina coated Graphite.

Supervisor: Prof. P. Shukla, Professor, Department of Mechanical Engineering and Prof. R. S. Singh, Professor, Department of Chemical Engineering, Indian Institute of Technology (BHU), Varanasi, Uttar Pradesh, India.

Post-Graduate Thesis:

Title- Exergy Analysis of Gas Turbine Cycle, NIT Jamshedpur, 2013

Objective: The objective of the work is conceptualization of an open gas turbine with and without sequential combustion. Mathematical modeling and thermodynamic analysis of various component of gas turbine cycle.

Supervisor: Dr. Sanjay, Professor, Department of Mechanical Engineering, National Institute of Technology, Jamshedpur, Jharkhand, India.

Technical Skills:

- Courses: Foundation in Mechanical CADD from CADD Centre, Noida in August, 2008.
- Experimental Techniques: Particle-Image Velocimetry (PIV), Nano-Scan, Optical Particle Sizer, Scanning Electron Microscopy (SEM), X-Rays Diffraction (XRD), Thermogravimetric analysis (TGA)
- Engineering software : AutoCAD, Pro-E, CATIA, ANSYS-Fluent, Altair HyperMesh

- Statistical software : Origin, MS-Excel

Industrial Trainings:

- One Month Industrial training on “Study of Kneeling Circuit and BOM Auditing” from 9th June, 2008 to 5th July, 2008 at TATA Motors.
- Two-week training on “Conducting an experiments with different concentration KI aerosol generated through tubular furnace” by BARC Scientist at Tarapur Atomic Power Station from 25th January, 2015 to 6th February, 2015.

References:

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3. Prof. Sanjay,
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4. Prof. P. Ghosh,
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I hereby declare that all the information given above is correct to the best of my knowledge.



Sunil Kumar Yadav