

SHITANSHU SAPRE

Present Address:

Flat No. A 201 Trimurti Apartment Model Town
Malviya Nagar, Jaipur 302015

Phone: +91-9993046724

E-mail: ssapre7@gmail.com

ResearchGate: https://www.researchgate.net/profile/Shitanshu_Sapre

Google Scholar: <https://scholar.google.com/citations?hl=en&user=8CoT7WUAAAAJ>

QUALIFICATION

Ph.D. (Doctor of Philosophy) (submission stage)

Jan '16–Present

Malaviya National Institute of Technology Jaipur

Title: *Modeling and Assessment of Compressed Hydrogen Storage System for Fuel Cell Vehicle.*

Supervisors: Dr. Kapil Pareek

Research Area: Hydrogen Energy and its application, Hydrogen Infrastructure, Fuel cell vehicles, Energy storage

Course work CGPA: 7.67 out of 10

M.Tech in Energy Technology

Sept '09–Dec '11

University of Technology Madhya Pradesh (RGPV), India

Percentage: 74.0 out of 100

Thesis: *Bio methanation of fruits and vegetable waste*

B.E. in Mechanical Engineering

May '04–June '08

University of Technology Madhya Pradesh (RGPV), India

Percentage: 72.4 out of 100

RESEARCH/ TEACHING EXPERIENCE

(08 Year 04 Months)

Malaviya National Institute of Technology Jaipur

Jan '16 - Present

Senior Research Fellow (Centre for Energy and Environment)

Roles and Responsibilities:

- Research fellow in Energy Storage Lab.
- Lab development activities such as installation, fabrication and maintenance of equipment's.
- Preparing and reviewing the research articles, project proposals and project reports.
- Organizing workshop, seminar, and guest lectures.

SVKM's Narsee Monjee Institute of Management Studies, Shirpur

May '14–Dec '15

Assistant Professor (Department of Mechanical Engineering)

Roles and Responsibilities:

- Teaching subjects Heat transfer, Fluid mechanics and Project management in UG programs.
- Mentoring of students.
- Guiding academic projects.
- Involved in research activities of department.
- Departmental administrative works.

Gyan Ganga Institute of Technology and Sciences, Jabalpur

Jan '12–May '14

Assistant Professor (Department of Mechanical Engineering)

Roles and Responsibilities:

- Teaching subject's IC Engines, Automobile engineering, Theory of machines and in UG programs.
- Mentoring of students.
- Guiding academic projects.
- Involved in research activities of department.
- Departmental administrative works.

Roles and Responsibilities:

- Supervising installation and commissioning of Power gensets projects.

AWARDS/SCHOLARSHIPS

- Selected for Ph.D. Fulltime scholarship from **MHRD-Govt. of India** (2016-Present).
- Excellent Teacher Award “**SRIJAN 2015**” by M.P. Council of Science and Technology for the subject Internal Combustion Engines.

PUBLICATIONS

- **Sapre S**, Pareek K, Rohan R, Singh PK. H2 refueling assessment of composite storage tank for fuel cell vehicle. **International Journal of Hydrogen Energy**. 2019;44: 23699-707.
- **Sapre S**, Pareek K, Rohan R, Singh PK. Investigation of compressed hydrogen refueling process of 60L Type IV tank used in fuel cell vehicles. **Energy Storage Wiley Online Library**. (<https://doi.org/10.1002/est2.91>)
- **Sapre S**, Sharma A, Ranjan RK, Bajpai Y. Bio energy from fruit &vegetable waste by anaerobic digestion global j. of engg. & appl. sciences 1 (4), 4.

CONFERENCE/ WORKSHOP/ COURSES

Conference

- **Sapre S**, Pareek K. Investigation of Refueling Parameters of Storage Capacity of Type IV Hydrogen Storage Tank. **International Conference on Sustainable Energy and Green Technology 2019 Bangkok, Thailand**.
- **Sapre S**, Pareek K. Transient Filling and its Effect on Key Parameters of Compressed Hydrogen Storage System for Fuel Cell Vehicle. **6th International Hydrogen & Fuel Cell Conference 2017, Hydrogen Association of India Pune**.
- Soni S, **Sapre S**, Pareek K. A comparative analysis of Ti1.1CrMn metal hydride-based hydrogen storage system with compressed hydrogen storage system for fuel cell vehicle application. **International conference on Nanotechnology in Energy, Nano-bio interface & Sustainable Environment (INTENSE-2017)** Jaipur.
- **Sapre S**, Arora V. Optimization of wind turbine for low wind speed. **National Conference on Energy Conservation for Sustainable Development 2011** Jabalpur.

Workshop

- **Industry Academia Conclave on Energy Storage 30th November 2019** organized by Department of Science and Technology Ministry of Science and Technology Government of India.
- **Fundamental and Applications of Microfluidics” 1st -5th April 2019** organized by Department of chemical Engineering MNIT Jaipur and College of Technology and Engineering Udaipur.
- **Energy Storage: The Future of Energy” 11th -15th March 2019** organized by AICTE Training and Learning (ATAL) Academy at MNIT Jaipur.
- **Fuel Cell” 11st -12th April 2016** organized by Department of chemical Engineering MNIT Jaipur.
- **Power Distribution and Challenges” 21st -22nd January 2011** organized by Department of Electrical and Electronic Engineering Gyan Ganga Collage of Technology Jabalpur.

Courses

- **“Modelling of Energy System using CFD: Theory and Practice” 1st -7th July 2017** organized by IIT-BHU Varanasi.

- **“Optimization Techniques in Engineering Applications”** 14th-18th December 2015 organized by ISTE- NMIMS Shirpur.
- **“Step 2 Research” 19th-20th September 2014** organized by ISTE Kerla Section at NMIMS Shirpur.
- **“Engineering Thermodynamics” 11th -21st December 2012** organized by ISTE and IIT Bombay.

TECHNICAL SKILL

- **Subjects:** Hydrogen Energy and Applications, Fuel cell Technology, Computational fluid dynamics, Modelling and Simulation, Energy Efficiency and Management, Energy Storage, Heat Transfer, IC Engines, Fluid Mechanics.
- **Software Tools:** AutoCAD, Fluent ANSYS.
- **Statistical Tools:** Origin, Stat Soft (Statistica).

PERSONAL INFORMATION

- **Date of Birth:** 07 March 1986
- **Linguistic Proficiency:** English, Hindi, Marathi
- **Marital Status:** Married
- **Permanent Address:** H.N.1788 New Adarsh Colony Gajanan Society Jabalpur (MP)

REFERENCE

1. Dr. Kapil Pareek
Assistant Professor, Centre for Energy and Environment
Malaviya National Institute of Technology Jaipur
JLN Marg, Jaipur - 302017, India
kapil.cee@mnit.ac.in
2. Dr. Pawan Kumar Singh
Assistant Professor, Department of Mechanical Engineering
Indian Institute of Technology (IIT-ISM) Dhanbad
Sardar Patel Nagar, Hirapur, Dhanbad- 826004, India
pawan@iitism.ac.in
3. Dr. Jyotirmay Mathur
Professor, Centre for Energy and Environment
Malaviya National Institute of Technology Jaipur
JLN Marg, Jaipur - 302017, India
jmathur.mech@mnit.ac.in