### PRAVIN SONARKAR

### Objective

Seeking a fulfilling position with a prestigious institution in Teaching & Education and aspiring to tap my knowledge and acquired skills in the field of Chemical Engineering to empower the future generation with quality education, skills and attitude to benefit self and society.

## **Professional Summary**

- Nine years of progressive experience and hands-on knowledge of various challenging projects in Chemical Engineering.
- Have a wide exposure of working experience in the field of teaching, research and administration.
- Strong research and analytical abilities.
- Ability to apply understanding of complex chemistry into research and provide detailed analysis.
- Extensive knowledge of current engineering tools used for computing and analysis.
- Excellent problem solving skills.
- Proficient in written and oral communication skills.
- Good visualization, analytical and change management skills.
- Excellent interpersonal, organizational and leadership skills.
- Ability to log work in a neat and detailed manner.
- Flexible, focused and mission oriented team play.
- Dedication and drive as a hard working individual.

### **Professional Summary**

Institution 1:	Professional Tutorials, Surat
Designation:	Administrative Executive
Period:	July 2006 - March 2007
Institution 2:	Shat-Aau Tilak Management College, Nagpur
Designation:	Japanese language Faculty
Period:	July 2008 – May 2009
Institution 3:	Somalwar Nikalas Mahavidyalaya, Nagpur
Designation:	Contributory Faculty for Cosmetic Technology
Period:	June 2008 – May 2009
Organization 4:	Bectochem Consultants & Engineers Pvt.Ltd, Pune
Designation:	Purchase & Planning Coordinator
Period:	Dec 2010 – May 2012
Institution 5:	Gharda Institute of Technology, Lavel, Ratnagiri
Designation:	Assistant Professor on ad-hoc basis
Period:	July 2012 – May 2014
Institution 6:	VNIT, Nagpur
Designation:	Research Scholar
Period:	June2014 – Feb2019

- Awarded Ph.D. in Biomass Gasification from VNIT Nagpur.
- MTech in Chemical Engineering from Laxminarayan Institute of Technology, Nagpur
- BE in Chemical Engineering from National Institute of Technology, Surat.

## **Industrial Trai**

**IT** Expertise

### Company: Karnataka Soaps and detergents (Bangalore)

During this training I learnt about Production and Study on Manufacture of Soap and Detergents. Also did hands on manufacturing of the soap, had a good exposure towards the manufacturing industry.

Instruments	Spectrophotometer, Digital Colorimeter, Gas Chromatography.
Languages	C, C++, FORTRAN
Software	COMSOL, MATLAB
Operating Systems	Windows, XP, Vista

## **Work Profile**

### Institution: VNIT (Nagpur)

#### Role: Research Scholar

#### June 2014 - Feb 2019

- As a Research Scholar, I have done research in the field of biomass gasification in a laboratory scale Gasifier stove top-lit updraft mode that constitutes the idea behind efficient and clean burning domestic stoves.
- Experimentation using fuel rice husk, coconut shell, wood, wood pellets different performance parameters to increase the efficiency of stoves were studied.
- Fabricate forced draft stoves which reduced stove emission of CO, CO2 and PM2.5 up to 50% and 60-63% respectively as compared to traditional cook stoves.

## Responsibilities

- Fundamental experimental and computational investigations on gasification and combustion in a packed bed of biomass.
- Use of the principles of gasification to improve the performance of the stoves to the highest possible level, balancing between efficiency and ash fusion issues for domestic and industrial applications.

### Institution: Gharda Institute of Technology (Ratnagiri)

#### **Role: Assistant Professor**

#### July 2012 – May 2014

As an Assistant Professor I handled end to end responsibilities of teaching and training

#### Responsibilities

- Teaching Chemical Engineering subjects computer application, material science.
- Laboratory load for process control and lab setup.
- Training and Placement Coordinator of Department of Chemical Engineering.
- Participated and conducted in various talk, seminar and workshops in ISTE (Indian Society for Technical Education) and IIChE (Indian Institute of Chemical Engineers).

#### **Role: Purchase & Planning Coordinator**

### Dec 2010 - May 2012

#### Responsibilities

- Material Planning Scheduling and follow-up from local and outstations sources.
- Handling and Implementation plan against new released project by balancing out the old stock of Component within stipulated time frame. Procurement of raw material, keeping the track and distributing it to the vendors or the further processing.
- Monitoring incoming material control and quality of incoming material as per material specification.
- Doing cost reduction by applying value engineering, negotiation and alternate sourcing techniques.
- Managed the entire responsibilities of Planning & Execution of project; inspected & thoroughly checked GA Drawing with Offer & Technical Specifications and developed BOM for the machinery.
- Chosen alternates & undertook cost analysis for project; tracked project using Bar Charts & MS Project as well as analyzed deviations.
- Charted out scheduling of the material required as per project status and provided daily progress Report to the manager.

#### Institution: Somalwar Nikalas Mahavidyalaya (Nagpur)

#### Role: Contributory Faculty

June 2008 - May 2009

June 2008 - May 2009

### Responsibilities

- Took lectures for heat transfer and mechanical operations subjects for UG level.
- Paper assessment includes making, evaluation and result updating work.
- Laboratory work of subjects engineering graphics and plant design for 2<sup>nd</sup> year students.

#### Institution: Shat-Aau Tilak Management College (Nagpur)

### Role: Japanese language Faculty

Responsibilities

- Gained experience and exposure with intra disciplinary students, and teachers
- Introduction to foreign language, numbers, scripts and sentence forming in Japanese
- Took up the position of faculty for mathematics in BCA class for a period of six months

#### Institution: Professional Tutorials (Surat)

#### Role: Administrative Executive

July 2006 - March 2007

#### Responsibilities

- GATEFORUM executive for Surat Branch.
- Institute coaching for MBA Aspirants CAT,XAT,FMAT,SNAP,GMAT etc. doubt solving, counseling and other miscellaneous activities
- Enquiry handling in front office and follow ups of the enquiries
- Marketing of institute in different engineering colleges

- Sonarkar, P. R., Mardikar, E. A., Gupta, S., Dhabu, S. S. and Chaurasia A. S. (2017). Performance Evaluation, Economic Analysis and Design of Biomass-Based Modified Purti Gasifier Stove. *Journal of Scientific & Industrial Research*, vol. 76, 110-114. DOI: <u>http://nopr.niscair.res.in/handle/123456789/39822</u> (Print ISSN: 0022-4456, Online ISSN: 0975-1084)
- Sonarkar, P. R., and Chaurasia A. S. (2018). Thermal performance of three improved biomass-fired cookstoves using fuel wood, wood pellets and coconut shell. *Environment Development and Sustainability*. DOI: <u>https://doi.org/10.1007/s10668-018-0096-0</u> (Print ISSN: 1387-585X, Online ISSN: 1573-2975)
- Sonarkar, P. R., and Chaurasia A. S. (2018). An Improved Gasifier Cookstove: Utilizing Fan Driven Forced Draft for Cleaner Combustion. *Journal of Scientific & Industrial Research*, vol. 77, 381-385. DOI: <u>http://nopr.niscair.res.in/handle/123456789/44676</u> (Print ISSN: 0022-4456, Online ISSN: 0975-1084)
- P R Sonarkar & A S Chaurasia, Paper entitled "Single spherical particle experiments, empirical modeling, and performance identification using packed bed combustors." (Under review in Journal of The Institution of Engineers (India): Series E)
- P R Sonarkar & A S Chaurasia, Paper entitled "User centric approach to design of forced draft biomass cook stove to lower indoor air pollution" (Under review in Energy Sources, Part A: Recovery, Utilization, and Environmental Effects)

# Conferences

- Experimental and Computational studies on improved gasifier stove" presented poster in Research Scholars Day -2014 in VNIT, Nagpur on 20th September, 2014.
- Presented & Awarded 2nd price Research paper on "Improvement in the Design of Biomass-Based Gasifier Stoves" in TRANSTECH' 15 organized by Tolani Maritime Institute in association with 'The Institute of Marine Engineers (India)' and 'The Institution of Engineers (India), Pune from 26th – 28th February, 2015.
- Presented & Awarded 2nd price Research paper on "Effect of Moisture Content of Biomass Pellet on Different Parameters in Gasifier Based Purti Cook Stoves" in from 29th – 30th March, 2015.
- Paper Presentation entitled "Design and Testing of biomass-based Cook Stoves" in CHEMCON 15 organized by Indian Institute of Technology, Guwahati from 27th -30th December 2015.
- Paper Presentation entitled "Performance based improvements in biomass cook stoves design" in REACT 2016 organized by Laxminarayan Institute of Technology, Nagpur from 27th - 28th February 2016.
- Poster presented entailed "Design and Performance Evaluation of a Forced Draft Cooking Stove" in CHEMCON 16 organized by Indian Institute of Technology, Madras from 27th -30th December 2016.
- Paper Presentation entitled "Emission performance between traditional and improved biomass fired cook stoves using fuel wood, wood pellets and coconut shell". Proceedings of National Conference on Inter and Intra-disciplinary Blend of Chemical Engineering (CHEMIX 2017), VNIT, Nagpur, India during March 25-26, 2017.
- Presented at Seminar during BE on Global Warming and their Effects In this seminar, various examples were taken to explain who it is getting affected along with the some of the solution which can save the environment.
- Poster presented entailed "Pollutant emissions and energy efficiency of gasifier cooking stoves and implications for future intervention studies" International Conference on Emerging Trends in Biotechnology for Waste Conversion (ETBWC-2017)-14th Convention of the Biotech Research Society, India held in NEERI Nagpur from 8th -12th October 2017.
- Paper Presentation entitled "User centric approach for Design of forced draft biomass cook stove to lower indoor air pollution" in 70th Annual Session of Indian Institute of Chemical Engineers CHEMCON 2017 organized by Dept. of Chemical Engineering, Haldia Institute of Technology, Haldia (WB) from 27th -30th December 2017.
- Paper Presentation entitled "Performance evaluation and emission characterisation of three stoves using fuel wood, wood pellets and coconut shell". Proceedings of National

Conference on Inter and Intra-disciplinary Blend of Chemical Engineering (CHEMIX 2018), VNIT, Nagpur, India during April 7-8, 2018.

## Achievements

- 2nd prize winner paper presentation research paper on "Improvement in the Design of biomass-based Gasifier stoves" in TRANSTECH' 15 organized by Tolani Maritime Institute in association, Pune.
- Awarded 2nd price research paper on "Effect of Moisture Content of Biomass Pellet on Different Parameters in Gasifier Based Purti Cook Stoves" in CHEMIX' 15, VNIT, Nagpur.
- Volunteer for Infrastructure in the MINDBEND -2004 (Technical Festival).
- 1st prize winner of regional group song competition during SPRASH 2006
- GENERAL QUIZ BY SAE college club 2nd prize winner
- Qualified GATE-2007 Examination.
- Lifetime Member of IICHE LAM-61814

### **Personal Details**

: 24th May, 1984
: Male
: Married
: Indian
: L8830854 (Expires on 15 <sup>th</sup> March 2018)
: DDBPS4383H
: English, Hindi & Marathi, Gujarati and Japanese
: S/o Ravindra Sonarkar, Plot No 51, Samta-lay-out,
North Ambazari Road, Nagpur, Maharashtra.
Pin: 440033
: +91-7972141196 : pravin.svnit@gmail.com

# **DECLARATION:**

I hereby declare that the above-mentioned information is correct up to my knowledge and I bear the responsibility for the correctness of the above-mentioned particulars.

Pravin Sonarkar

Date: 29/08/2018 Place: Nagpur

### **References** -

# Dr. Imran Rahman,

Scientist, Chemical Engineering and Process Development Division, National Chemical Laboratory, Pune Email id: <u>r.imran@ncl.res.in</u> M.No. +919423219015

## Dr. R. B. Mankar

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