

## Curriculum Vitae

**Name:** Sri. D.N. Subbukrishna

**Address:** CGPL, Indian Institute of Science,  
Bangalore 560 012  
Phone: 080 - 2360 0536, 2360 0140  
Fax: 080 - 2360 1692

**E-mail:** [subbu@cgpl.iisc.ernet.in](mailto:subbu@cgpl.iisc.ernet.in)  
[skrishna25@yahoo.com](mailto:skrishna25@yahoo.com)

**Residential:** No. 29, 'AMRUTHA', Survey No 7/1,  
Simhadri Pavers, Behind Ashwini Kalyana  
Mantappa, Uttarahalli, Bangalore.  
Pin: 560 061  
Phone: 080-639 1200

**Personal Information:** Date of Birth: May 25, 1971.  
Marital Status: Married.  
Father's Name: D. Nagesha Rao.

**Educational Qualification:** B.E (Chemical), First Class, 1992, Bangalore  
University, (from Siddaganga Institute of  
Technology, Tumkur).  
Secured 6<sup>th</sup> Rank in Chemical Engineering in the  
University.  
Project during graduation: Production of Lactic  
Acid from whey using *lactobacillus*

Research work in progress for Ph.D.

**Professional Information:** Project Engineer, KSCST, IISc,  
December 1992 onwards till date  
1992 to 1996 at ASTRA, IISc  
1996 onwards at CGPL, IISc

## Research & Development Activities:

### Sweetening of Biogas:

Basic research activities carried out to design, develop and commissioning of Hydrogen sulphide scrubbing technology to sweeten biogas. The work involved basic studies, lab scale experimental set up, pilot plant studies and finally industrial implementation of the technology. The technology is called ISET process – Indian Institute of Science Sulphur Extraction Technology

This has resulted in successful commissioning of the systems at sites for using the sweet gas in IC Engines for power production at various sites totaling around to 4.6 MWe.

### Precipitated Silica:

Involved in basic study, design & development of a novel method to extract precipitated silica from rice husk ash which otherwise is a industrial waste and nuisance posing disposal problems. The lab scale studies on precipitated silica obtained have shown that the silica obtained by such process meets the requirements of the industry. The Patents have been filed in India & Thailand for the process.

Pilot plant studies of the process have been taken up and also basic design work is being carried out for Industrial production of around 24 Tons per Day plant

### Biomass Gasification:

Involved in erection & commissioning of Biomass Gasifiers.

### Activated carbon:

Involved in basic studies carried out to analyze the char coming out of gasification unit and enhancing the activation properties of the same. Lab scale studies were carried out for activating the char produced and the activated carbon of Iodine number greater than 750 was produced and evaluated.

### Water Treatment:

Involved in perception, concept development, lab scale studies and industrial implementation of water treatment for treating the Cooling & Cleaning water used in gasification system.

### Development of Potable Water Device:

This work involved in using the oligodynamic properties of silver in developing a passive potable water device. Involved in basic studies including experimental work, selection & design of optimal device and lab & pilot scale studies. The device

developed brings down the microbial water contamination to potable limits as set WHO guidelines

#### Solid phase fermentation of biomass:

Small-scale studies on anaerobic solid phase fermentation of leafy biomass were carried out in order to reduce the reactor volume for processing the same quantity of biomass.

#### List of Patents filed:

Detail	Date	Reference
A Novel process and apparatus for the manufacture of Precipitated Silica from Rice husk ash. – Indian Patent	Feb 2003	134/MAS/2003
A Novel process and apparatus for the manufacture of Precipitated Silica from Rice husk ash. – Thailand Patent	Feb 2004	088822
A Novel process and apparatus for the manufacture of Precipitated Silica from Rice husk ash. – Indonesian Patent	Feb 2004	
A Novel process and apparatus for the manufacture of Precipitated Silica from Rice husk ash. – Chinese Patent	Feb 2004	

#### List of Publications/Reports/Books/Conferences:

Author	Title of the Report
D.N.Subbukrishna, K.C. Suresh, Dasappa S, P.J.Paul, N.K.S.Rajan	'Precipitated silica from rice husk ash by IPSIT Process' , Paper presented at 15 <sup>th</sup> European Biomass conference, Berlin, May, 2007
G Sridhar, D N Subbukrishna H V Sridhar, S Dasappa, P J Paul, HS Mukunda	'Torrefaction of Bamboo', Paper presented at 15 <sup>th</sup> European biomass conference, Berlin, May 2007.
D.N.Subbukrishna, Dasappa S, P.J.Paul, N.K.S.Rajan,	'Sweetening of biogas using ISET process for H <sub>2</sub> S removal', Paper presented at 14 <sup>th</sup> European Biomass conference, Paris, October 2005
G Sridhar, H V Sridhar, S Dasappa, P J Paul, D N Subbukrishna N K S Rajan	'Green Electricity From Biomass Fuelled Producer Gas Engine', Paper presented at 14 <sup>th</sup> European Biomass conference, Paris, October 2005

D.N.Subbukrishna, Dasappa S, P.J.Paul, H.S.Mukunda, N.K.S.Rajan, K.C Suresh	Precipitated Silica from Rice husk ash., Inscight, Page 2, Vol 6, No. 4, December 2003
D.N.Subbukrishna, Dasappa S, P.J.Paul, H.S.Mukunda, N.K.S.Rajan, H V Sridhar, G Sridhar, V Gayathri K.C Suresh	Member author of the book Biomass to Energy published by ABETS, CGPL, IISc
D.N.Subbukrishna, Dasappa S, P.J.Paul, H.S.Mukunda, N.K.S.Rajan	Report on Performance of Hydrogen Sulphide Scrubbing system at Ugar Sugar works, Belgaum, Karnataka
D.N.Subbukrishna, Dasappa S, P.J.Paul, H.S.Mukunda, N.K.S.Rajan	Report on Performance of Hydrogen Sulphide Scrubbing system at KCPSIC Ltd., Krishna District, Andhra Pradesh
D.N.Subbukrishna, Dasappa S, P.J.Paul, H.S.Mukunda, N.K.S.Rajan	Report on Precipitated Silica from Rice husk Ash.