

## BIO-DATA

### Name and address

**DAKINEDI SUBBA RAO**

Professor

Department of Chemical Engineering

JNTU College of Engineering (Autonomous)

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### Education

B.Tech. (Chemical Engineering), 1980, First class, Andhra University, Visakhapatnam

M.Tech. (Chemical engineering), 1982, First class, Andhra University, Visakhapatnam

Specialization - Energy Engineering

Ph.D. (Chemical Engineering), 1995, IIT, Madras.

Area of research – Biochemical Engineering

**Thesis title:** Studies on comparative analysis of gluconic acid fermentation

using cane molasses by free cells and immobilized whole cells of *Aspergillus niger*

### Research Experience

1. Senior Research Fellow of CSIR, Dept of Chemical Engineering, Andhra University, Visakhapatnam, 1983-86.

Research topic: Studies on bioconversion of cellulosic wastes

2. Project Director, Dept of Geo-Engineering and Resource Development Technology, Andhra University, Visakhapatnam, 1986-89.

Nature of work: Promoting R&D in the field of non-conventional energy resource utilization and application.

3. Research Scholar, Dept of Chemical Engineering, IIT Madras, 1989-92.

Nature of Work: Research to obtain Ph.D.

### Teaching Experience

1. Part-time Lecturer in Govt. Institute of Advance Technician Courses, Govt. Polytechnic campus, Visakhapatnam, March to June 1988 and July to October 1988.

2. Lecturer, Chemical Engineering Department, JNTU College of Engg. Anantapur, Oct.1992 to October 1996.
3. Assistant Professor (Senior scale) Department of Chemical Engineering, JNTU College of Engineering, Anantapur, October 1996 to October 2000.
4. Taught a course on instrumentation to M.Sc. (Tech.) Polymer Science and Technology students of S.K. University, Anantapur, September 1996 and September 1997.
5. Taught a course on Unit Operations in Food Processing for M.Sc. (Food Tech.) Students at O T R I, Anantapur, from Jan 2002 to June 2003.
6. Associate Professor, Chemical Engineering Department, JNTU College of Engineering, Anantapur, October 2000 to April 2006
7. Taught M. Tech courses in Chemical Engineering in Chemical Engineering Department, JNTU College of Engineering, Anantapur, from December 2001 to date.
8. Professor, Chemical Engineering Department, JNTU College of Engineering, Anantapur, April 2006 to date.

#### **Administrative experience**

1. Head, Chemical Engineering Department, JNTU College of Engineering, Anantapur, from March 1997 to November 2000.
2. Officer-in-charge, Examination Section, JNTU College of Engineering, Anantapur, from July 2003 to March 2005.
3. Deputy Warden, Ellora Hostel, JNTU College of Engineering, Anantapur, from August 2005 to April 2007.
4. Placement Officer, JNTU College of Engineering, Anantapur, from April 2007 to September 2008.
5. TEQIP Nodal Officer i/c, JNTU College of Engineering, Anantapur, from September 2008 to January 2010.
6. Head, Chemical Engineering Department, JNTUA College of Engineering, Anantapur, from January 2010 to February 2013.
7. Vice-Principal, JNTUA College of Engineering, Anantapur, from September 2012 to November 2014.

8. Director, Academic Audit, JNTUA, Ananthapuramu, November 2014 to October 2016.
9. Rector, JNTUA, Ananthapuramu from October 2016 to May 2018.
10. Rector JNTUA, Ananthapuramu from May 2019 till date

### **Research Projects handled**

1. Principal investigator for AICTE sponsored R&D project “Studies on gluconic acid production from cane molasses by an immobilized multi-enzyme complex”. Amount sanctioned – 5.0 lakhs. Duration – 3 years (1997-2000)
2. Co-ordinator for AICTE sponsored TAPTEC project “Rice husk combustion in circulating fluidized bed (CFB) furnace”. Amount sanctioned – 5.0 lakhs. Duration – 3 years (1997-2000)

### **Research projects Guidance**

1. M. Tech – 30
2. Ph. D. Awarded – 09, (Submitted – 04, Ongoing – 06)

### **Publications**

#### *National Conferences*

1. Rao D.S., Vasudeva Rao P.H.V., Ramakrishna Rao S., & Venkata Rao B. Bio-conversion of aquatic weeds of Kolleru lake, 5<sup>th</sup> National Convention of Bio-energy Society of India, Udaipur, Oct. 1987.
2. Rao D.S., Ravi Prasad A., Venkateswar Rao K., & Chiranjivi C., Correlation of vapor-liquid equilibria using Margules equations, Indian Chemical Engineering Congress, Baroda. Dec 1988.
3. Rao D.S., Panda T., Production of gluconic acid by *Aspergillus niger* : Comparative analysis of calcium gluconate and sodium gluconate method, IX convention of AFST(I), CFTRI Mysore, June 1991.
4. Rao D.S., Panda T., Comparative analysis of gluconic acid production using various treated cane molasses. Indian Chemical Engineering Congress, 44<sup>th</sup> Annual session of IChE, Madras, December 1991.

5. Rao D.S., Panda T., Studies on gluconic acid production by whole cell immobilized *Aspergillus niger*, CHEMCON 92, 45<sup>th</sup> Annual session IChE, Manipal, Dec. 1992.
6. Rao D.S., Panda T., Comparative analysis of gluconic acid fermentation using cane molasses by free cells and immobilized whole cells of *Aspergillus niger*, National Symposium on Technology and Management of industrial wastes and pollutants, Andhra University, Visakhapatnam, June 1997.
7. Rao D.S., Panda T., Kinetics of gluconic acid fermentation by immobilized whole cells of *Aspergillus niger*, Indian Chemical Engineering Congress, 51<sup>st</sup> Annual Session of IChE, Visakhapatnam, December 1998.
8. Rao D.S., Panda T., Effect of controlled pH, aeration and agitation on gluconic acid production from treated cane molasses by *Aspergillus niger*, CHEMCON 2005, 58<sup>th</sup> Annual Session of IChE, New Delhi, December 2005.
9. Rao D.S., Panda T., Studies on kinetics and nature of gluconic acid fermentation using treated cane molasses by *Aspergillus niger*, CHEMCON 2007, 60<sup>th</sup> Annual Session of IChE, Kolkata, December 2007.
10. Mehraj Pasha, K. Anuradha, P. and Subba Rao, D, Biochemical and Molecular Studies on Pectinases isolated from *Aspergillus foetidus* MTCC 10367, National Seminar on “Emerging trends in Biotechnology: Challenges and Opportunities” – 2012, School of Herbal Studies and Naturo Sciences, Department of Biotechnology, Dravidian University, Kuppam, March 2012.
11. M. Parvathi, J. Ravendra Reddy, D. Subba Rao, Preparation and evaluation of solid lipid nanoparticles using different solid lipids, National Symposium and workshop on Benefits & Applications of Multidimensional techniques in Pharmaceutical arena – focus on current research, Guntur, 18-20<sup>th</sup> October, 2015.
12. M. Parvathi, J. Ravendra Reddy, D. Subba Rao, Optimization, development & evaluation of solid lipid nanoparticles from micro emulsion technique from different biocompatible solid lipids using Box-Behnken design, 66<sup>th</sup> Indian Pharmaceutical Congress, Hyderabad, 23-25<sup>th</sup> January, 2015.
13. M. Parvathi, J. Ravendra Reddy, D. Subba Rao, Targeting of nanoparticles from nose to brain for multiple sclerosis, National seminar on Nano materials and Global Perspectives, Ananthapuramu, 30<sup>th</sup>-31<sup>st</sup> January 2015.

14. Vamshi Krishna M., Vijaya Kumar B. and Subba Rao D., Development of Self Micro Emulsifying System to Improve Oral Bioavailability of Carvedilol, Reforms and Innovations in Pharmacy Education Towards Global Standards – RIPE -2015, JNTUH Hyderabad, 13<sup>th</sup>-14<sup>th</sup> March 2015.
15. N. Raghavendra, Chakka Gopinath and D. Subba Rao, *In silico* studies and optimization of okra gum as release retarding polymer using 3-full level factorial design in gastro retentive drug delivery system of repaglinide, 67<sup>th</sup> IPC, JSS University, Mysuru, Karnataka, 19<sup>th</sup>-21<sup>st</sup> December, 2015.
16. G. Hema, D. Subba Rao and B. S. Thippeswamy, Antigenotoxic potential of apocynin against cyclophosphamide induced damages in mice pce's and *Allium* root meristems, National Conference on New Approaches and Concepts in Microbial Biotechnology, Maharani's Science College for Women, Bangalore, 29-30<sup>th</sup> September, 2015.
17. V. Sravanthi, Archana, D. Subba Rao, and Hezil Noronha, Synthesis of isobutyl acetate by batch reactor and reactive distillation using ecofriendly catalyst, National Conference on Advances in Synthesis and Separations in Chemical and Biological Processes (NCASSCB – 2016), Bangalore, 16<sup>th</sup>-17<sup>th</sup> February, 2016.
18. N. Raghavendra, Chakka Gopinath and D. Subba Rao, Isolation and assessment of natural mucoadhesive agent isolated from *Abelmoschus esculentus*, 2<sup>nd</sup> Andhra Pradesh Science Congress, Vijayawada, 7<sup>th</sup> - 9<sup>th</sup> November, 2016.
19. S. Lakshman Kumar, Dr. A.V.N. Swamy, Dr. D. Subba Rao and Dr. Muralidhar, Extraction of algal oil by using micro algae for the production of biodiesel, Indian Chemical Engineering Congress 2016, The 69<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers, Chennai, 27<sup>th</sup> - 30<sup>th</sup> December, 2016.
20. Sravanthi T, Waghray Kavita and Subba Rao D, Preparation of Value Added Products from Tamarind Pulp, 26<sup>th</sup> Indian Convention of Food Scientists and Technologists (ICFoST), Hyderabad, 7<sup>th</sup> - 9<sup>th</sup> December, 2017.
21. G. Hema, D. Subba Rao and B. S. Thippeswamy, Apocynin as an antigenotoxic and anticytotoxic agent – Investigations through mn induction, *Allium cepa* root tip assay, MTT assay and DNA fragmentation, National Symposium on An Integrated Approach to Diagnosis and Therapy in Cancer, at Maharani Lakshmi Ammani College for Women, Bangalore, 7-8<sup>th</sup> March, 2017.

22. G. Hema, D. Subba Rao and B. S. Thippeswamy, Evaluation of genotoxic and antigenotoxic abilities of Diosgenin against cyclophosphamide induced damages in mice, National Conference Advanced Research in Pharmaceutical and Chemical Sciences – Emerging Challenges in Practice, at OTPRI, JNTUA, Anantapur, 15-16<sup>th</sup> September, 2017.
23. Sravanthi Veluturla, Archana Narula, Subba Rao D., L. V. Anirudh, Kinetic Study of acetins using a solid catalyst, 23<sup>rd</sup> National Symposium on Catalysis (CATSYMP-23) at PPISR, Bangalore, organized by Catalysis Society of India, Bengaluru Chapter, during 17-19<sup>th</sup> January 2018.
24. G. Hema, D. Subba Rao and B. S. Thippeswamy, Quest for natural compounds against genotoxicity – The prospects of apocynin and diosgenin, National Conference on Innovations and Future Challenges in Biotechnology, at S. V University, Tirupati, 26-28<sup>th</sup> March 2018.

#### ***International Conferences***

1. Rao D.S., Panda T., Comparative analysis for the production of gluconic acid by immobilized whole cells and free cells of *Aspergillus niger* using KF treated cane molasses,ACHEMA 94, Frankfurt, Germany, June 1994.
2. Panda, Tapobrata, P.S.R.Babu, J.A.Kumari, D.S.Rao, K.Theodore, K.Jagannadha Rao, S.Siva Kesava, A.Kapat, S.R.Nair, J.Sinha, R.Sreenivas, G.Lakshmi Prasanna, V.Venkata Dasu, M.Pazouki, P.Athur Felse, G.S.Naidu, B.Gokul, S.Uma, K.Srividya, R.V.Muralidhar, K.Balamurugan & K.Chandrasekar, Bioprocess optimization – a challenge, Proceedings, International Symposium, Biotechnology Processes, Kwangju, Korea, October 25, 1997.
3. Huei Ruey Ong, D.M. Reddy Prasad, Md. Maksudur Rahman Khan, D.Subba Rao, Nitthiyah Jeyaratnam and Dinesh Kumar Raman, Effect of Jatropha Seed Oil Meal and Rubber Seed Oil Meal as Melamine Urea Formaldehyde Adhesive Extender on the Bonding Strength of Plywood, ICCEIB -SOMChE 2011 Universiti Malaysia Pahang, Kuantan, 28th November to 1st December, 2011.
4. Mehraj Pasha, K. Anuradha, P. and Subba Rao, D, Biochemical and Molecular Studies on fungal pectinase isolated from industrial fruit waste, World Congress on Biotechnology, Bright International Conferences and Events, Hyderabad, May 2012.

5. D. Jayasimha Rayalu, D. Muralidhararao and D. S. Rao, Phytochemical Screening and Insilico Approach for Identification of Anti Stress Activity of Compounds from Medicinal Plants, WBBIO2013 Proceedings, Granada, 18-20 March, 2013
6. V. Sravanthi, Archana, D. Subba Rao, Prabhatranjan Jha and Anish Singh, Heterogeneous ecofriendly catalyst for esterification reaction-kinetics, HETIS-2014, International Conference on Harnessing Engineering, Technology and Innovation for Sustainable Development, Chandigarh, 18-19<sup>th</sup> September, 2014.
7. Sravanthi Velturla, Archana Narula, Subba Rao D. and Suniana P. Shetty, Kinetic study of synthesis of bio-fuel additives from glycerol using a heteropolyacid, International Conference on separation techniques in Chemical, Biochemical, Petroleum and Environmental Engineering, Technoscape16, VIT University, Vellore, 20-21<sup>st</sup> October 2016.
8. Sravanthi Veluturla, Archana Narula, Subba Rao D., L. V. Anirudh, Veeresh, Kinetics of esterification of acetic acid and amyl alcohol with a heteropoly acid, 3<sup>rd</sup> International Conference on Recent Advancements in Chemical Environmental and Energy Engineering(RACEEE) organized by Department of Chemical Engineering, SSN College of Engineering, Chennai, 15<sup>th</sup> and 16<sup>th</sup> February 2018.

#### ***National journals***

1. Rao D.S., Panda T., Technology of gluconic acid production, Indian Chemical Engineer, 35(1&2), 58-81, 1993.
2. S. Lakshman Kumar, S. Swarupa Rani, D. Subba Rao and A. V. N. Swamy, Production of algal oil by using micro algae for the treatment of different waste water, PARIPEX – Indian Journal of Research, 4(3), March 2015.

#### ***International Journals***

1. Rao D.S., Panda T., Comparative analysis of calcium gluconate and sodium gluconate techniques for the production of gluconic acid by *Aspergillus niger*, Bioprocess Engineering, 8, 203-207, 1993.
2. Rao D.S., Panda T., Critical analysis of the effect of metal ions on gluconic acid production by *Aspergillus niger* using treated Indian cane molasses, Bioprocess Engineering, 10, 99-107, 1994.

3. Rao D.S., Panda T., Comparative analysis of different whole cells immobilised *Aspergillus niger* catalysts for gluconic acid fermentation using pretreated cane molasses, *Bioprocess Engineering*, 11, 209-212, 1994.
4. Panda, Tapobrata, P.S.R.Babu, J.A.Kumari, D.S.Rao, K.Theodore, K.Jagannadha Rao, S.Siva Kesava, A.Kapat, S.R.Nair, J.Sinha, R.Sreenivas, G.Lakshmi Prasanna, V.Venkata Dasu, M.Pazouki, P.Athur Felse, G.S.Naidu, B.Gokul, S.Uma, K.Srividya, R.V.Muralidhar, K.Balamurugan & K.Chandrasekar, *Bioprocess optimization – a challenge*, *Journal of Microbiology and Biotechnology*, Volume 7, no.6, 367-372, 1997.
5. Huei Ruey Ong, D.M. Reddy Prasad, Md. Maksudur Rahman Khan, D.Subba Rao, Nitthiyah Jeyaratnam and Dinesh Kumar Raman, Effect of Jatropha Seed Oil Meal and Rubber Seed Oil Meal as Melamine Urea Formaldehyde Adhesive Extender on the Bonding Strength of Plywood, *Journal of Applied Sciences* 12(11), 1148-1153, 2012.
6. K. Mehraj Pasha, P. Anuradha and D. Subba Rao, Applications of Pectinases in Industrial Sector, *International Journal of Pure and Applied Sciences and Technology*, 16(1), 89-95, April 2013.
7. K. Mehraj Pasha, P. Anuradha and D. Subba Rao, Screening of a pectinolytic fungal strain *Aspergillus foetidus* MTCC 10367 for the production of multiple enzymes of industrial importance, *International Journal of Pharma and Biosciences*, 4(2), 1205-1209, April 2013.
8. K. Mehraj Pasha, P. Anuradha and D. Subba Rao, Production and properties of polygalacturonase from *Aspergillus foetidus* MTCC 10367 isolated from industrial fruit waste, *Bioscience Biotechnology Research Communications* 6(1), 24-27, May 2013.
9. Naresh Kumar K., Suresh Kumar C. and Subba Rao D., Homology, modeling and molecular docking studies of AS1(Anthranilate synthase component I (TrpE)) model of *Mycobacterium tuberculosis*, *International Journal of Computers and Technology*, Vol.10 (1), 1236-1248, July 2013.
10. K. Mehraj Pasha, P. Anuradha and D. Subba Rao, Purification and properties of polygalacturonase from a novel strain *Aspergillus foetidus* MTCC 10367, *International Journal of Advanced Research*, Vol. 1, Issue 6, 104-108, August 2013.



11. K. Mehraj Pasha, P. Anuradha and D. Subba Rao, PCR amplification of DNA isolated from a pectinolytic fungus *Aspergillus foetidus* MTCC 10367, Journal of Pure and Applied Microbiology, Vol.7(3), 2443-2445, September 2013.
12. D. Jayasimha Rayalu, D. Muralidhararao and D.S.Rao, Phytochemical Screening and Insilico Approach for The Identification Of Anti Stress Compounds From Medicinal Plants, International Journal of Applied Biology and Pharmaceutical Technology, vol.4 (1), 324-334, Jan-Mar, 2013.
13. M. Parvathi, J. Ravendra Reddy, D. Subba Rao, Development, Characterization and Optimization of solid lipid nanoparticles from microemulsion technique using Box-Behnken design, International Journal of Pharmaceutical, Chemical and Biological Sciences, 4 (4), 1082-1091, 2014.
14. M. Parvathi, J. Ravendra Reddy, D. Subba Rao, Development, Characterization and Optimization of freeze drying condition of prednisolone acetate solid lipid nanoparticles using Box-Behnken design, International J. Research in Pharmacy and Chemistry, 5 (3), 443-451, 2015.
15. Peddanna Kotha, Jayasimha Rayalu Daddam, Venkata Ramana Sai Gopal Divi, Subba Rao Dakinedi, Muralidhararao Dowlathabad, Modelling simulation phylogenetics of leukemia FMStyrosine kinase 3 (FLT3), Online Journal of Bioinformatics, Volume 16 (1), 8-17, 2015.
16. Vamshi Krishna M., Vijaya Kumar B. and Subba Rao D., Towards Elucidation of Drug Release Kinetics from Monolithic Hydroxy Propyl Methycellulose Matrices Containing Release Modifiers, Journal of Global Trends in Pharmaceutical Sciences, Vol. 6 (2), 2580-2685, 2015.
17. D. Jayasimha Rayalu, D. Muralidhararao and D.S.Rao, Studies on *Tephrosia purpurea*: Phytochemical Screening and Antimicrobial Studies, International Journal of Plant, Animal and Environmental Studies, Vol.5 (4), 106-109, Oct-Dec, 2015.
18. D. Jayasimha Rayalu, D. Muralidhararao and D.S.Rao, Phytochemical Screening and Antimicrobial Studies of *Hemidesmus indicus*, International Journal of Applied Biology and Pharmaceutical Technology, Vol. 6 (4), 16-19, Oct-Dec, 2015.
19. Vamshi Krishna Madishetty, Vijaya Kumar Bontha and Subba Rao D., Quantification of Carvedilol in Various Lipids by RP-HPLC/UV Method:

- Application in Development of Lipid Based Drug Delivery Systems, International Journal of Pharmacy and Biological Sciences, Vol. 5 (3), 129-135, 2015.
20. G. Hema, D. Subba Rao and B. S. Thippeswamy, Evaluation of anti-genotoxic activity of Apocynin against Cyclophosphamide-induced damages in bone marrow cells of mice and root meristem cells of *Allium cepa* L., International Journal of Drug Research and Technology, Vol. 5 (4), 149-156, 2015.
  21. Vamshi Krishna Madishetty, Vijaya Kumar Bontha and Subba Rao D., Enhanced Oral Bioavailability of Carvedilol by Supersaturable Self Emulsifying Drug Delivery System, Latin American Journal of Pharmacy, (accepted for publication - 2016)
  22. N. Raghavendra Naveen, Chakka Gopinath and D. Subba Rao, Isolation and assessment of natural mucoadhesive agent isolated from *Abelmoschus esculentus*, Journal of Pharmacy Research, 11(5), 438-443, 2017.
  23. N. Raghavendra Naveen, Chakka Gopinath and D. Subba Rao, Design expert supported mathematical optimization of repaglinide gastro retentive floating tablets: *In vitro and in vivo* evaluation, Future Journal of Pharmaceutical Sciences, 3, 140-147, 2017.
  24. N. Raghavendra Naveen, Chakka Gopinath and D. Subba Rao, A Spotlight on thiolated natural polymers and their relevance in mucoadhesive drug delivery system, Future Journal of Pharmaceutical Sciences, Accepted August 2017. Available online.
  25. T. Sravanthi, Kavita Waghay and D. Subba Rao, Phytochemical screening and anti-microbial and anti-oxidant studies of dehydrated tender tamarind (*Tamarindus indica*) leaves, International Journal of Food Science and Nutrition, Volume 2, Issue1, 62-64, January 2017.
  26. T. Sravanthi, Kavita Waghay and D. Subba Rao, Phytochemical screening and anti-microbial and anti-oxidant studies of tamarind (*Tamarindus indica*) seed coat, International Journal of Food Science and Nutrition, Volume 2, Issue1, 166-168, January 2017.
  27. K. Peeter Simon, M. Aruna, Juliana Mandha and D. S. Rao, Nutritional evaluation and oil blending studies of different oils, International Journal of Food Science and Nutrition, Volume 2, Issue 1, 101-105, January 2017.

28. K. Peeter Simon, M. Aruna, and D. S. Rao, Studies on physicochemical properties of edible oils, *International Journal of Food Science and Nutrition*, Volume 2, Issue 2, 01-10, March 2017.
29. Sravanthi Velturla, Archana Narula, Subba Rao D. and Suniana P. Shetty, Kinetic study of synthesis of bio-fuel additives from glycerol using a heteropolyacid, *Resource-Efficient Technologies*, Volume 3, Issue 3, 337-341, September, 2017.
30. Ramalingam Peraman, Subba Rao Dakinedi, Rajesh Reddy Kadiri and Lavanya Malineni, Reliable and sensitive stability indicating – liquid chromatographic method for determination of Azilsartan Medoxomil and characterization of common hydrolytic degradation product, *J. Young Pharmacists*, Vol. 9, Issue 2, 197-202, Apr-Jun 2017.
31. Ramalingam Peraman, D. Subba Rao, Rajesh Reddy Kadiri and Amarnatha Reddy Bommireddy, Stability-indicating RP-HPLC-DAD method for the simultaneous estimation of Tramadol HCl and Diclofenac sodium, *Journal of Applied Pharmaceutical Science*, Vol. 7, Issue 9, 85-93, September 2017.
32. Rajesh Reddy Kadiri, Ramalingam Peraman and D. Subba Rao, Stability-indicating RP-HPLC method for Quantification of Edoxaban tosylate, *International Journal of Research in Pharmaceutical Sciences*, 9(2), 314-320, April 2018.
33. Sravanthi Veluturla, Narula Archana, D. Subba Rao, N. Hezil, I. S. Indrajya and S. Spoorthi, Catalytic valorization of raw glycerol derived from biodiesel: a review, *Biofuels*, Vol. 9, No. 3, 305-314, 2018. (published online by Taylor and Francis)
34. Sravanthi Veluturla, Archana Narula, D. Subba Rao, Indrajya S. and Rajeswari M. Kulkarni, Experimental and Kinetic Studies of Esterification of Glycerol using combustion synthesized  $\text{SO}_4^{2-}/\text{CeO}_2\text{-Al}_2\text{O}_3$ , *Korean Chemical Engineering Research*, 56(4), 592-599, 2018.
35. Hema G., Subba Rao D. and Thippeswamy B. S., Evaluation of cytotoxic and anticytotoxic properties of apocynin, *International Journal of Biology Research*, Volume 3, Issue, 98-102, Jan-Mar 2018.
36. Hema G., Subba Rao D. and Thippeswamy B. S., Evaluation of Antigenotoxic effects of diosgnin in mice exposed to cyclophosphamide, *International Journal of Research in Pharmaceutical Sciences*, 9(1), 96-102, 2018.

### **Guest lectures delivered**

1. Delivered a lecture on “Scale up and scale down studies of fermentation processes”, for Post Graduate students of Madurai Kamaraj University, Madurai, 30<sup>th</sup> April, 1992.
2. The following lectures were delivered:
  - a. Overview of Biopolymer Synthesis Kinetics
  - b. Batch Kinetics of Pullulan Biosynthesis – Case Study – I
  - c. Kinetics of Xanthan Gum Fermentation – Case Study IIduring a short term course on Process Design and Scale up of Innovative Biopolymer Fermentation”, May 18-23, 1998, IIT, Madras, Chennai.
3. Delivered a lecture on “Curriculum for General Biochemical Engineering with special reference to Kinetics and Control of Biological Processes”, during a Curriculum Development Workshop on “Education of Biotechnology in India”, March 23, 1999, IIT, Madras, Chennai.
4. Delivered a lecture on “Studies on gluconic acid fermentation using treated cane molasses by free and immobilized whole cells of *Aspergillus niger*”, 3-day workshop on “Biotechnology and Bioseparations”, JNTU College of Engineering, Anantapur, 16-18, February, 2006.

### **Short term courses/Workshops attended**

1. A continuing education course on “Integrated Renewable Energy systems”, Hyderabad, Sept., 1986
2. A workshop on “Planning and management of Urja Gram”, Hyderabad, Dec 1986.
3. A short term course on “Bioreactor Design”, Andhra University, Visakapatnam, June 1988.
4. A short term course on “Modern Analytical and Biochemical Engineering methods for engineers and scientists”, Andhra University, Visakapatnam, December 1988.
5. A winter school on “Computer Software”, JNTU College of Engg., Anantapur, Jan-Feb, 1993.
6. A short-term course on “Neural Networks in Chemical Process Engineering”, IISc, Bangalore, 5-6<sup>th</sup> Feb 1996.

7. A summer school on “Entrepreneurship Development”, S.V. University, Tirupati, June 1997.
8. A winter school on “Programming in C++ and Data Structures”, JNTU College of Engineering, Anantapur, December 1997 to January 1998.
9. A short-term course on “Modeling of Bioreactors”, IISc, Bangalore, March 1998.
10. A summer school on “Numerical Methods with C for Scientists & Engineers, JNTU College of Engineering”, Anantapur, March-April 1999.
11. National Workshop on “New Concepts in Energy Utilization”, JNTU College of Engineering, Anantapur, 30<sup>th</sup> September 2003.
12. Symposium on “Chemical Engineering-The Journey Ahead”, IISc, Bangalore, 20-21 June, 2005.
13. Two-day workshop on “Advances in Chemical Engineering”, JNTU College of Engineering, Anantapur, 23-24 February, 2007.
14. Workshop on “Academic Reforms in Chemical Engineering”, University College of Technology, Osmania University, Hyderabad, 2<sup>nd</sup> March, 2007.
15. Workshop on “Curriculum Development for B. Tech Chemical Engineering”, S.V. University, Tirupati, 23-24 May, 2007.
16. Brain Storming Session on “Resources availability in Chemical Engineering”, JNTU College of Engineering, Anantapur, 22<sup>nd</sup> December, 2007
17. Two-day workshop on “Application of Design of Experiments in Research and Process Development”, University College of Technology, Osmania University, Hyderabad, 17-18 January, 2008.
18. Training Programme on “Management Capacity Development” at MDI, Gurgaon, 3-8 November, 2008.
19. Two-day workshop on “Overview of Nanotechnology and its Emerging Applications”, Andhra University, Visakhapatnam, 18-19 March, 2009.
20. Phase –I workshop for “Training Resource Persons on Outcome Based Accreditation”, JNTUA NBA Nodal Center, Ananthapuramu, 29<sup>th</sup> April, 2013.
21. Two-day workshop on “Outcome Based Education Approach in Engineering Curriculum”, JNTUA College of Engineering, Ananthapuramu, 26<sup>th</sup> - 27<sup>th</sup> August, 2014.

22. One-day workshop on “Awareness on Washington Accord for Outcome Based Education”, JNTUA College of Engineering, Ananthapuramu, 4<sup>th</sup> August, 2015.
23. India-UK Tech Summit, New Delhi, 8-9<sup>th</sup> November, 2016
24. XII Higher Education Summit, New Delhi, 10<sup>th</sup> November, 2016
25. One-day International Workshop on “Innovations in Financing of Higher Education”, Sri Padmavathi Mahila Visvavidyalayam, Tirupathi, 20<sup>th</sup> February, 2017.
26. One-day conference on “Quality Initiatives in Technical Education”, AICTE, New Delhi, 24<sup>th</sup> January, 2018.
27. TEQIP-III/CEP short term course on “Technologies for Organic Biomass Production”, at IIT Delhi, Sonapat campus, Haryana, from 3-5 Dec, 2018.

#### **Seminars/ Conferences/ Workshops Organized**

1. President, Organizing Committee, FUSION ‘99 & 2000, Vice President, Organizing Committee, FUSION 2001 – 2004, 2007, Convener, FUSION 2005, Technical Advisor, FUSION 2008, National Level Students’ Seminar for Chemical Engineering Students organized by Chemical Engineering Department, JNTU College of Engineering, Anantapur.
2. Coordinator, 3-day workshop on “Biotechnology and Bioseparations”, Chemical Engineering Department, JNTU College of Engineering, Anantapur, 16-18, February 2006.
3. Joint Organizing Secretary, SCHEMCON-2006, 2<sup>nd</sup> Annual Session of students Indian Chemical Engineering Congress, Chemical Engineering Department, JNTU College of Engineering, Anantapur, 15-16, September 2006.
4. Coordinator, National Conference on “Applications of Bioprocess Engineering in Industries”, Chemical Engineering Department, JNTU College of Engineering, Anantapur, 16<sup>th</sup> March, 2007.
5. Coordinator, Community Service Programme on “Awareness on Energy, Environment and Water Conservation” in Anantapur Town, 26<sup>th</sup> September 2007.

#### **Membership of Professional Bodies**

1. Life Member of Indian Society for Technical Education
2. Life Member of Indian Institute of Chemical Engineers

### **External Examiner**

Appointed as external examiner for UG and PG theory and practical examinations, project viva-voce examinations conducted by Sri Venkateswara University, Osmania University, Andhra University, Sri Krishnadevaraya University, Nagarjuna University and Sri Padmavathi Mahila Viswa Vidyalayam.

Also, appointed as adjudicator of Ph.D. thesis by Andhra University, Osmania University.

### **Other Activities**

1. Placement Coordinator, Chemical Engineering Department, JNTU College of Engineering, Anantapur, from October 1992 – March 1998 and April 2000 to January 2001.
2. Member, Board of Studies for Chemical Engineering, JNTU, 1998 to 2000.
3. Member, Board of Studies, Chemical Engineering Department, JNTU College of Engineering (Autonomous), Anantapur, 2001 to date.
4. Member, Fact Finding Committee for granting of temporary affiliation of Private Engineering Colleges and Pharmacy Colleges to JNTU, November 2005 – 2014.
5. Member, Academic Audit, Private Engineering College affiliated to JNTU, December 2005.
6. University Nominee to act as Member of the Governing Body of various private engineering and pharmacy colleges affiliated to JNTU, 2005 to date.
7. Attended Placement Officers' meet organized by TCS, CTS and Wipro at Hyderabad, Goa and Kodaikanal respectively during 2008.
8. Chairman, Board of Studies in Chemical Engineering, JNT University, 2007 – 2008.
9. Chairman, Board of Studies in Chemical Engineering, JNTU Kakinada, 2008 – 2010.
10. Member, Board of Studies in Biotechnology, JNTU Anantapur, 2008 – 2010.
11. Member, Board of Studies in Chemical Engineering, JNTU Hyderabad, 2008 – 2010.
12. Member, Editorial Board, Research Journal of Engineering and Technology, May 2008 till date.
13. Chairman, PG Board of Studies in Biotechnology, JNTUA, Anantapur, 2009-11.
14. Chairman, PG Board of Studies in Chemical Engineering, JNTUA, Anantapur, 2012-14.

15. Chairman, PG Board of Studies in Biotechnology, JNTUA, Anantapur, 2014 to 2016.
16. Chairman, PG Board of Studies in Chemical Engineering, JNTUA, Anantapur, 2016-18.
17. University nominee for attending the Academic Council meeting of Sri Venkateswara College of Engineering and Technology (Autonomous), Chittoor, for the year 2018-2019
18. University Nominee for attending the Results Committee meetings and declaring results of all courses of Annamacharya Institute of Technology and Sciences (Autonomous), Rajampet, for the academic year 2018-2019.

**(D.SUBBA RAO)**