

# CURRICULUM VITAE

Dr. Dilip Kumar Behara  
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Department of Chemical Engineering  
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## Career Objective:

To put my best and utilize every opportunity for the growth and development of the Organization.

## Academic Profile:

Year of Passing	Course	Institute	Percentage /CPI*
2015	Ph.D (Chemical Engineering)	Indian Institute of Technology (IIT)- Kanpur	9.68*
2005	M. Tech. (Chemical Engineering)	JNTUA College of Engineering, Anantapuramu	84.0
2002	B. Tech. (Chemical Engineering)	G.V.P. College of Engineering, JNTU (Hyderabad)	83.98
1997	Intermediate (10+2)	Dr. V.S. Krishna Govt. College, Visakhapatnam	84.1
1995	High School	Mrs. A.V.N.C. High School, Visakhapatnam	87.0

## B. Tech Thesis:

### Pinch Technology-Heat Exchanger Networks (HEN) Design

Supervisor: 1) Prof B. Srinivas, Professor, GVP College of Engg, Visakhapatnam

## M. Tech Thesis:

### Modeling and Simulation of Kinetic behavior of a packed bed reactor with Layered and mixed catalyst arrangement

Supervisors: 1) Prof. B. Srinivas, Professor, GVP College of Engg, Visakhapatnam  
2) Prof S. V. Satyanarayana, Professor, JNTUA CE, Anantapuramu

## Ph. D Thesis:

### Photoelectrochemical (PEC) Water Splitting via metal-oxide heterostructures

Supervisors: 1) Prof Sri. Sivakumar, Professor, IIT Kanpur  
2) Prof Raj G. Pala, Professor, IIT Kanpur

### Job Experience:

S.No.	Institution/Organization	Position held	Dates	Duration
1.	JNTUA College of Engg. Anantapur	Associate Professor of Chemical Engineering*	14-12-2019 To Till date*	2.8 Years
2.	JNTUA College of Engg. Anantapur	Assistant Professor of Chemical Engineering	14-12-2006 To 14-12-2019	13 Years
3.	G. V. P. College of Engineering, Visakhapatnam	Assistant Professor of Chemical Engineering	01-10-2005 To 12-12-2006	1.2 Years
4.	G. V. P. College of Engineering, Visakhapatnam	Project Associate	26-08-2004 To 30-09-2005	1.1 Years

### Projects Guided:

B. Tech - 13 batches completed  
M. Tech - 16 completed (3 on-going)  
Ph. D - 05 on going (01 submitted)

### Administrative Experience:

S. No.	Administrative Post held	Duration
1.	Head of the Department Department of Chemical Engineering JNTUA College of Engg., Anantapur (AP)	22 <sup>nd</sup> Feb 2022 to till date
2.	Deputy Controller of Examinations	4 <sup>th</sup> October 2010 to 15 <sup>th</sup> July 2011 & 10 <sup>th</sup> July 2017 to 22 <sup>nd</sup> Feb 2022
3.	Deputy Warden, Lepakshi Hostel, JNTUA Engineering College Hostels, Anantapur	3 <sup>rd</sup> Aug 2007 to 10 <sup>th</sup> March 2010 & 11 <sup>th</sup> July 2016 to till date
4.	Treasurer, Teachers Association, JNTUA College of Engineering Anantapur	4 <sup>th</sup> Dec 2009 to 15 <sup>th</sup> July 2011 & 1 <sup>st</sup> Feb 2017 to till date
5.	NSS Program Officer, Unit-II, JNTUA College of Engineering, Anantapur	25 <sup>th</sup> July 2015 to 18 <sup>th</sup> August 2017
6.	Student Chapter Coordinator, IChE Anantapuramu Local center	13 <sup>th</sup> Nov 2016 to till date
7.	Coordinator, Spoken Tutorials (IIT Bombay), JNTUA CE Anantapur	June 2015 to till date
8.	A.P operation Team Member, APSCHE British Council on English Communication and soft skills	8 <sup>th</sup> May 2017 to till date
9.	Executive Council (EC) Member, Chemical Engineering Division, IEI, local chapter, Anantapuramu Local center	September 2019 to till date

10.	<b>In charge, Computer Laboratory; Department Library; and Chemical Stores, Department of Chemical Engineering, Anantapur</b>	<b>14<sup>th</sup> December 2006 to 15<sup>th</sup> July 2011</b>
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## Publications:

### International Journal

1. **Dilip Kumar Behara**, Ashok Kumar Ummireddi, Vidyasagara Aragonda, Prashant Kumar Gupta, Raj G Pala and Sri Sivakumar, “Coupled optical absorption, charge carrier separation, and surface electrochemistry in surface disordered/hydrogenated TiO<sub>2</sub> for enhanced PEC water splitting reaction”, *Phys. Chem. Chem. Phys.*, 2016, 18, 8364-8377. **Impact Factor 3.567**
2. **Dilip Kumar Behara**, Gyan Prakash Sharama, Arun Prakash Upadhyay, Gyan Prakash Maurya, Raj G Pala, and Sri Sivakumar, Synchronization of Charge Carrier Separation by Tailoring the Interface of Si-Au-TiO<sub>2</sub> Heterostructures via Click Chemistry for PEC Water Splitting, *Chem. Eng. Sci.*, 2016, 154, 150–169. **Impact Factor 3.37**
3. Arun Prakash Upadhyay, **Dilip Kumar Behara**, Gyan Prakash Sharama, Anshumaan Bajpai, Nicholous Sherac, Regina Regan, Raj G Pala and Sri Sivakumar, “Generic Process for Highly Stable Metallic Nanoparticle-Semiconductor Heterostructures via “Click” Chemistry for Electro/Photocatalytic Applications”, *ACS Appl. Mater. Interfaces*, 2013, 5 (19), 9554–9562. **Impact Factor 8.56**
4. Arun Prakash Upadhyay, **Dilip Kumar Behara**, Gyan Prakash Sharama, Gyanprakash, Maurya, Raj G Pala and Sri Sivakumar, Fabricating Appropriate Band-Edge Staggered Hetero Semiconductors with Optically Activated Au Nanoparticles via Click Chemistry for Photoelectrochemical Water Splitting", *ACS Sustainable Chem. Engg*, 2016, 4 (9), 4511–4520. **Impact Factor 6.97**
5. **Dilip Kumar Behara**, Sulay Saha, R. Babu, Malay Kumar Das, Sri Sivakumar and Raj Ganesh S Pala, Design of Photoelectrochemical Materials via Non-Native Nanostructures and their “Click” Assembly into Photoreactor, *SMC Bulletin*, Vol. 5 (No. 2), August 2014.
6. Abdul Khadar, **Dilip Kumar Behara**, Kalyan Kumar Meda, “Synthesis and characterization of controlled size TiO<sub>2</sub> nanoparticles via green route using Aloe Vera Extract”, *Int. J. Sci. Res.*, 5, 11, 1913-1916, 2016 **Impact Factor 6.4**

7. Govardhan Neeli, **Dilip Kumar Behara**, Kalyan Kumar Meda, “State of the Art review on Thermoelectric Materials”, *Int. J. Sci. Res*, 5, 10, 1833-1844 (2016) **Impact Factor 6.4**
8. Sudhanva. M. Desai, N.C.L.N Charyulu, **Dilip Kumar Behara**, and Suggala V. Satyanarayana, “Statistical optimization of adsorption variables for biosorption of chromium (VI) using carrot based adsorbents-equilibrium and kinetic studies”, *J. Env. Res. Dev*, 10, 3, 392-406, 2016 **Impact Factor 4.301**
9. M. Sudha Maheswari, Jalajakshi Tammineni, **Dilip Kumar Behara**, “The strategic role of TiO<sub>2</sub> based photocatalysts in dye degradation studies: A short Review”, *Int. J. Adv. Res. Sci. Eng*, (ISSN 2319-8354), 05, 01, 2016, 351-364 **Impact Factor 2.83**
10. Pooja Sree Palukuru, Vishnu Priya Devangam A, and **Dilip Kumar Behara**, “N, S-codoped TiO<sub>2</sub>/Fe<sub>2</sub>O<sub>3</sub> Heterostructure assemblies for Electrochemical Degradation of Crystal Violet Dye Degradation”, *Ira. J. Chem. Chem. Engg*, 39, 169-177, 2020 **Impact Factor 0.83**
11. Sudha Maheswari M, Jalajakshi T, and **Dilip Kumar Behara**, “TiO<sub>2</sub>/Fe<sub>2</sub>O<sub>3</sub>: Type-I Heterostructures for Electrochemical Crystal Violet Dye Degradation”, *J. Inst. Engrs-Series E*, 100, 189–198 (2019). **Impact Factor 0.83**
12. Lutukurthi D N V V Konda, Suman Dutta, DK Behara, Effect of ignition temperature and fuel amount on photocatalytic activity of solution combustion synthesized ZnO, *Ceram. Int.* 46, 14 (2020), 22419-22428. **Impact Factor 3.83**
13. Jalajakshi T, Sudha Maheswari M, and **Dilip Kumar Behara**, “TiO<sub>2</sub>/ZnO: Type-II Heterostructures for Electrochemical Dye Degradation Studies”, *Maced. J. Chem. Chem. Engg*, 39, 2 (2020). **Impact Factor 0.88**
14. Vishnu Priya Devangam A, Pooja Sree Palukuru, and **Dilip Kumar Behara**, “Multi element doped TiO<sub>2</sub>/ZnO: Type-II Heterostructures for Electrochemical Crystal Violet Dye Degradation Studies”, *Int. J Nano Dimens*, 11 (4), 303-311, 2020. **Impact Factor 0.766**
15. Deb Sankar De, Dilip Kumar Behara, Sulay Saha, Arun Kumar, Anandh Subramaniam, Sri Sivakumar, and Raj Ganesh S Pala, Design of Iso-material Heterostructures of TiO<sub>2</sub> via seed mediated growth and arrested phase transitions, *Phys. Chem. Chem. Phys.*, 22, 25366–25379, 2020. **Impact Factor 3.567**
16. Rajababu Chilakapati, S Hemanth Kumar, S V Satyanarayana, B Dilip Kumar, Adsorptive Removal of Methylene Blue (MB) and Malachite Green (MG) dyes from aqueous solutions using Graphene Oxide (GO), *Zeitschrift für Physikalische Chemie*. 1-16, 2021. **Impact Factor 2.23**

17. Lutukurthi D N V V Konda, Suman Dutta, DK Behara, Dual role of activated carbon as fuel and template for solution combustion synthesis of porous Zinc Oxide (ZnO) powders, *J. Am. Ceram. Soc.*, 00, 1–13, 2021(<https://doi.org/10.1111/jace.17841>). **Impact Factor 4.109**
18. P. Umamaheshwari, B. Dilip Kumar, Suggala. V. Satyanarayana Pervaporation of hydrazine/water with Ethylcellulose/4A zeolite mixed matrix membranes, *Korean J. Chem. Eng.*, 38, 2324–2331, 2021, **Impact Factor 3.309**.
19. Harshavardhana Krishna Kuruganti, V Ramasubbaiah, Jampu Sreenivasulu, and Dilip Kumar Behara, Dairy Waste Scum as a Potential Feed stock for Bio-Diesel Production: Optimization, Quality and Reliability Studies, *Indian Chem. Eng.*, 1-13, 2022 **Impact Factor 1.091**
20. Amarnath Reddy Rami Reddy, Dilip Kumar Behara, “Analytical Method Validation on Simultaneous Estimation of Ozenoxacin and Benzoic Acid in Pharmaceutical Formulations”, submitted to *Acta Chromatogr.* (Just accepted). **Impact Factor 2.164**
21. Kiran Kumar Reddy, Dilip Kumar Behara, “Moving towards high-energy rechargeable Mg batteries- Status and challenges”, *Int. J. Energy Res.*, (Just accepted). **Impact Factor 5.164**
22. Raja Babu Chilakapati, S V Satyanarayana, Dilip Kumar Behara, Utilization of Tamarind Seeds waste for removal of Colours from Dye solutions, submitted to “*Pol. J. Environ. Stud.*” (Just accepted). **Impact Factor 1.699**
23. Gyan Prakash Maurya, Gyan P Sharma, Dilip Kumar Behara, Arun Prakash Upadhyay, Raj Ganesh S Pala, Relative suppression of electron-hole recombination and promotion of reactive surface state in "clicked" (Anatase-TiO<sub>2</sub>/Au) heterostructure by Rutile-TiO<sub>2</sub> in contrast to Si addition, (submitted to *Electrochimic Acta*)
24. Amarnath Reddy Rami Reddy, Dilip Kumar Behara, “A Comprehensive Methodology to Qualify and Validate the Critical Parameters of an In Vitro Release Test Method for Evaluation of Novel Antimicrobial Topical Cream, (Submitted to *Drug Development and Industrial Pharmacy*)
25. P. Umamaheshwari, B. Dilip Kumar, Suggala. V. Satyanarayana, Polyether block amide (PEBA)/Polyaniline (PANI)/Zeolitic(4A) Mixed Matrix Membranes (MMMs) for pervaporation dehydration of Isopropanol and Acetonitrile, submitted to *Separation & Purification Technology* (about to submit)
26. Lutukurthi D N V V Konda, Suman Dutta, DK Behara, The quantitative effects of Dextrose Fuel on the Solution Combustion Synthesis of ZnO and its Influence on Photocatalysis, Submitted to *Material Research Bulletin* (about to submit)

27. M.Ranga Rao, G.Sameena Farheen, Suggala. V. Satyanarayana, Dilip Kumar Behara, G.B. Radhika, The quantitative effects of cationic surfactants (CTAB & CPC) in removal of fluoride ions from aqueous solutions via Micellar Enhanced Ultra Filtration (MEUF) process submitting to Periodica Polytechnica Chemical Engineering (about to submit)
28. M. Ranga Rao, G.B. Radhika, Suggala.V. Satyanarayana, Dilip Kumar Behara, Design and Fabrication of Multipurpose Ultra Filtration Membrane Cell, submitting to Indian Chemical Engineer (about to submit)

### National Journal

1. **Dilip Kumar Behara**, “Competitive reaction pathways of primary alcohols (methanol and ethanol) in production of high yield Bio-diesel from sunflower oil” Submitted to Asian Journal of Chemistry (about to submit)

### Book Chapters

1. **Dilip Kumar Behara**, Arun Prakash Upadhyay, Gyan Prakash Sharma, B.V Sai Krishna Kiran, Sri Sivakumar and Raj Ganesh S Pala, “Heterostructures based on TiO<sub>2</sub> and Silicon for Solar Hydrogen generation”, *Adv. Fun. Mat.*, (219–281), © 2015, Scrivener Publishing LLC, Edited by Ashutosh Tiwari and Lokman Uzun (eds.), online ISBN No: 9781118998977, DOI No: 10.1002/9781118998977
2. Arun Prakash Upadhyay, **Dilip Kumar Behara**, Gyan Prakash Sharma, Raj Ganesh S Pala and Sri Sivakumar, Self/directed assembly of nanoparticles: A review on various approaches, *Adv. The. Mat.*, (297–336), © 2015, Scrivener Publishing LLC, Edited by Ashutosh Tiwari, Hirak K. Patra, and Jeong-Woo Choi (eds.), Online ISBN No: 978-1-118-99829-8
3. Gyan Prakash Sharma, Arun P Upadhyay, **Dilip Kumar Behara**, “Chapter 16: Photoelectrochemical Approaches to Solar-H<sub>2</sub> Generation”, *The Water-Food-Energy Nexus Processess, Technologies, and Challenges*, @ CRC Press 2017, Edited By I. M. Mujtaba, R. Srinivasan, N. O. Elbashir, ISBN: 978-1-4987-6084-3
4. Gyan Prakash Sharma, Arun P Upadhyay, **Dilip Kumar Behara**, “Chapter 15: Fundamental Aspect of Photoelectrochemical Water Splitting”, *The Water-Food-Energy Nexus Processess, Technologies, and Challenges*, @ CRC Press 2017, Edited by I. M. Mujtaba, R. Srinivasan and N. O. Elbashir, ISBN: 978-1-4987-6084-3
5. Kaveti Anithamma, N. Niranjan Kumar, S. V. Satyanarayana, Dilip Kumar Behara, Chapter 19: Synergistic Interaction among Supplementary Cementitious Materials (SCMs) for

Sustainable Solid Waste Management, Waste Management: Policies, Strategies & Models, e-book ISBN No: 9781003231608, 1<sup>st</sup> Edition, CRE press, Taylor & Francis Publishers

6. Dilip Kumar Behara, Jampu Sreenivasulu, Harshavardhana Krishna Kuruganti, Utilization of Dairy Waste Scum as a Potential Feed stock for Bio-Diesel Production”, LAP Lambert Book Publishers, ISBN No: 978-620-4-98181-9, Aug 2022.
7. G. Balakrishna, Dilip Kumar Behara, “Electrical mechanical Property studies of PVA nanocomposite films”, LAP Lambert Book Publishers, ISBN No: 978-620-5-51731-4, Nov 2022
8. A Comprehensive Review on Electrochemical sequestration of Carbon dioxide (CO<sub>2</sub>) into value-added chemicals: A Materials Perspective Approach, Materials based on Natural Sources: Structure, Properties and Applications, CRC Press (Submitted-Under Review)
9. Babu R, **Dilip Kumar Behara**, Sulay Saha and Malay Kumar Das, “A comprehensive review on PEC materials Synthesis and Design” (under review)

## Patent

1. Arun Prakash Upadhyay, **Dilip Kumar Behara**, Sri Sivakumar, Raj Ganesh S Pala, “Click Chemistry based Approach to Improve the Photostability of Dyes for Long Term Stability Dye Sensitized Photoelectrochemical Water splitting”. **Indian Patent Granted with Patent No: 342773** on 13 Jan 2015

## • International Conferences

1. Sheeba Jeswitha B, Dilip Kumar Behara, International Conference on Materials Science (ICMS-2022), Organized by Department of Physics, JNTUA College of Engineering, Ananthapuramu during 11-13 April 2022
2. Rajababu Chilakapati, Dilip Kumar Behara, International Conference on Materials Science (ICMS-2022), Organized by Department of Physics, JNTUA College of Engineering, Ananthapuramu during 11-13 April 2022
3. Chaitanya Kumar
4. Sneha
5. Sheeba Jeswitha B, Dilip Kumar Behara, Two day National Conference on Advances in Chemical Engineering and Science (ACES-2022), Organized by Department of Chemical Engineering, IISER Bhopal and UEC, Ujjain, during 25-26 March 2022
6. C. Uday Kumar, **Dilip Kumar Behara**, An Eco-Friendly Synthesis of Metal-Metal Oxide Composite using plant Extract of “Amaranthus Viridis” and its catalytic applications,

CHEMCON-2021, 74<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers, December 27-30, 2021, Bhubaneswar, Odisha, India.

7. Sruthi Lingampalli, **Dilip Kumar Behara** Corrosion inhibition studies of low carbon steel using some selected plants in acidic and neutral medium, 11<sup>th</sup> IconSWM-CE & IPLA Global Forum 2021, Jadavpur University, Kolkata, India (Virtual Mode); December 01-04, 2021
8. Pervaporation of hydrazine/water with Ethylcellulose/4A zeolite mixed matrix membranes, CHEMCON-2020 organized by IChE regional center & IChE Hyderabad, Dec 27-29, 2020
9. C Uday Kumar, **Dilip Kumar Behara**, “Green Synthesis of Ag-ZnO nanocomposites using “Amaranthus Viridis” plant extract for catalytic, electro-catalytic and photo-catalytic applications” presented at 1<sup>st</sup> International Conference (online) on Emerging Trends in Catalysis for Sustainable Chemical Processes (ETCSCP-2021) at MS Ramaiah Institute of Technology, Bangalore
10. H S Swetha, P Uma Maheswari, B Dilip Kumar, SV Satyanarayana, “ZSM-5/Sodium Alginate based Mixed Matrix Membranes for Pervaporation Dehydration of Ethanol”, presented at 1<sup>st</sup> International Conference (online) on Emerging Trends in Catalysis for Sustainable Chemical Processes (ETCSCP-2021) at MS Ramaiah Institute of Technology, Bangalore
11. G Veerendra, Suryanarayana S, S V Satyanarayana, B Dilip Kumar, P Uma Maheswari, “Synthesis and characterization of TiO<sub>2</sub> anatase nanoparticles for preparation of ethyl cellulose mixed matrix membranes (MMMs)”, presented at 1<sup>st</sup> International Conference (online) on Emerging Trends in Catalysis for Sustainable Chemical Processes (ETCSCP-2021) at MS Ramaiah Institute of Technology, Bangalore
12. Gowram Meghana, B Dilip Kumar, “An eco-friendly approach for synthesizing TiO<sub>2</sub>/ZnO nanocomposites for removal of organic pollutants from water”, presented at 1<sup>st</sup> International Conference (online) on Emerging Trends in Catalysis for Sustainable Chemical Processes (ETCSCP-2021) at MS Ramaiah Institute of Technology, Bangalore
13. Penugonda Gowri Manusha, Dilip Kumar Behara, S V Satyanarayana, “Methylene Blue removal studies using Activated carbon prepared from Tamarindus Indica Seeds”, presented at 1<sup>st</sup> International Conference (online) on Emerging Trends in Catalysis for Sustainable Chemical Processes (ETCSCP-2021) at MS Ramaiah Institute of Technology, Bangalore
14. Azra Raheena, Ranga Rao Manduva, Dilip Kumar Behara, S V Satyanarayana, “Removal of Fluoride from ground water using Micellar Enhanced Ultra filtration (MEUF)”, presented at



- 1<sup>st</sup> International Conference (online) on Emerging Trends in Catalysis for Sustainable Chemical Processes (ETCSCP-2021) at MS Ramaiah Institute of Technology, Bangalore
15. Ch Raja Babu, Madhavi Latha M, S V Satyanarayana, Dilip Kumar Behara, “Graphene Oxide (GO) as flexible adsorbent for Crystal Violet Dye degradation: Batch and Continuous Studies”, presented at 1<sup>st</sup> International Conference (online) on Emerging Trends in Catalysis for Sustainable Chemical Processes (ETCSCP-2021) at MS Ramaiah Institute of Technology, Bangalore
16. Uday Kumar C, Dilip Kumar Behara, Ag-ZnO nanocomposites synthesized using “Amaranthus Viridis” plant extracts for catalytic applications presented at International Conference (virtual mode) on Recent innovations in Chemical Biological Engineering (RICBE-2k21) on 16-18 September
17. Harsha Vardhan Krishna, Dilip Kumar Behara, Biodiesel production from dairy waste scum: optimization, quality & reliability studies, International Online Conference on Sustainable Research Technology & Development (IOSCRT-2020), September 24-25, 2020. Dr. SSB University Institute of Chemical Engineering and Technology, Panjab University, Chandigarh, India in collaboration with Dibrugarh University Institute of Engineering and Technology, Assam, India.
18. Sruthi Lingampalli, **Dilip Kumar Behara**, “Corrosion inhibition studies of low carbon steel using different plant inhibitors in acidic and neutral mediums”, International virtual conference on ‘Innovation in Chemical Sciences-2020: International meet on quality and quantity’, 21-22 August 2020, VIT Chennai.
19. V. Rama Subbaiah, **Dilip Kumar Behara**, “Corrosion inhibition studies of low carbon steel using different plant inhibitors in acidic and neutral mediums”, International virtual conference on ‘Innovation in Chemical Sciences-2020: International meet on quality and quantity’, 21-22 August 2020, VIT Chennai.
20. M. Ranga Rao, G. B. Radhika, Suggala.V. Satyanarayana, **Dilip Kumar Behara**, “Design and Fabrication of a Multipurpose Membrane Cell”, International Conference on Recent Advances in Chemical Engineering (RACE) -2020, 8-9 January 2020 at OUCT, Hyderabad
21. P. Uma Maheswari, M. RangaRao, Suggala.V. Satyanarayana, **Dilip Kumar Behara** “Extensive study of Pore diffusion models in understanding Pervaporation Process, International Conference on Energy & Environment: Challenges and Opportunities for Industries organized by MNIT Jaipur, 28-29 December 2019
22. V. Rama Subbaiah, **B. Dilip Kumar**, Facile Synthesis of TiO<sub>2</sub> Nanoparticles for catalytic dye degradation studies, CHEMCON-2019, 15-19 December 2019, IIT Delhi

23. Anithamma K, **B. Dilip Kumar**, S.V. Satyanarayana, Strength development of Concrete with Fly Ash, Sugarcane Bagasse Ash and Coconut Coir as Supplementary Cementing Materials (SCM), CHEMCON-2018, Dec 26-29, Jalandhar, Punjab, INDIA
24. Hemanth Kumar, **B. Dilip Kumar**, S.V. Satyanarayana, Preparation of Graphene Oxide (GO) nanoparticles as Efficient Dye Adsorbent for Wastewater Treatment, CHEMCON-2018, Dec 26-29, Jalandhar, Punjab, INDIA
25. **Dilip Kumar Behara**, Kaveti Anithamma, N Niranjana Kumar, Selection, Design and Optimization studies of low cost waste materials to improve the compressive strength of Cement concrete, 2<sup>nd</sup> International Conference on Recent Research Emerging trends in Mechanical and Civil Engineering, 13-14 July 2018, Reva University, Bangalore, India
26. **Dilip Kumar Behara**, Balakrishna Yadav, Studies on structure-property relationships of PVA Nano composite film-based on conducting polymer/zeolite A/titanium dioxide(TiO<sub>2</sub>), International Conference on Recent Advances in Engineering Sciences, 26-27 September 2018, MSR Institute of Technology, Bengaluru, India.
27. **Dilip Kumar Behara**, N. Niranjana Kumar, Study of low cost waste materials as partial replacement to cement/coarse aggregate to improve the performance of cement concrete, International Conference on Recent Advances in Engineering Sciences, 26-27 September 2018, MSR Institute of Technology, Bengaluru, India.
28. **Dilip Kumar Behara**, Pooja Sree Palukuru, and Vishnu Priya Devangam “Doped Metal Oxide Heterostructures (N, S-TiO<sub>2</sub>/Fe<sub>2</sub>O<sub>3</sub>) for Electrochemical Crystal-Violet Dye Degradation Studies”, 32<sup>nd</sup> Indian Engineering Congress, The Institution of Engineers, India IE(I), Technical Volume, Page No: 362-367, 21-23 December 2017, Chennai.
29. **Dilip Kumar Behara**, Vishnu Priya Devangam, and Pooja Sree Palukuru, “Doped Metal Oxide Heterostructures (N, S-TiO<sub>2</sub>/ZnO): Catalytic/Electro-Catalytic Studies”, 32<sup>nd</sup> Indian Engineering Congress, The Institution of Engineers, India IE(I), Technical Volume, Page No: 368-373, 21-23 December 2017, Chennai.
30. Sudha Maheswari M, Jalajakshi T, and **Dilip Kumar Behara**, “Physicochemical Studies of TiO<sub>2</sub>/Fe<sub>2</sub>O<sub>3</sub>/ZnO Heterostructure Assemblies for Electrochemical Water Splitting/Dye Degradation Applications”, 31<sup>st</sup> Indian Engineering Congress, The Institution of Engineers, India IE(I), Technical Volume, Page No: 298-304, 15-18 Dec 2016, Kolkata
31. **B. Dilip Kumar**, presented a paper entitled “Competitive reaction pathways of primary alcohols (methanol and ethanol) in production of high yield Biodiesel from sunflower oil” at International Conference on “Trend Setting Innovations in Chemical Sciences and

- Technology- Nature Inspired Chemistry and Engineering (TSCST-NICE 2016)", on 4-6 Oct 2016 at Center for Chemical Sciences and Technology, IST, JNTUH, Hyderabad
32. M. Abdul Khadar, **B. Dilip Kumar**, Meda Kalyan Kumar, presented a paper entitled "Green Synthesis of TiO<sub>2</sub> nanoparticles using Aloe vera extract" at International Conference on "Trend Setting Innovations in Chemical Sciences and Technology- Nature Inspired Chemistry and Engineering (TSCST-NICE 2016)", on 4-6 Oct 2016 at Center for Chemical Sciences and Technology, IST, JNTUH, Hyderabad
33. P. Umamaheshwari, D. Tirupathi Rao, **B. Dilip Kumar**, and S.V. Satyanarayana, presented a paper entitled "Novel NaA Zeolite Incorporated PEBA/PANI Mixed Matrix Membrane for Dehydration of Isopropanol by Pervaporation" at International Conference on "Trend Setting Innovations in Chemical Sciences and Technology- Nature Inspired Chemistry and Engineering (TSCST-NICE 2016)", on 4 -6 Oct 2016 at Center for Chemical Sciences and Technology, IST, JNTUH, Hyderabad
34. Sudha Maheswari M, Jalajakshi T, **Dilip Kumar Behara**, presented a paper entitled " The strategic role of TiO<sub>2</sub> based photocatalysts: A short Review, 3<sup>rd</sup> International conference on Recent Innovations in Science, Engineering and Management, Sri Venkateswara College of Engineering, Srikakulam (AP), 27<sup>th</sup> Feb 2016
35. Jalajakshi T, Sudha Maheswari M, Uma Maheswari P, **Dilip Kumar Behara**, presented a paper entitled " A Review on Semiconductor based Nanocomposites for Photocatalytic Dye Degradation Applications" at International Conference on "Trend Setting Innovations in Chemical Sciences & Technology-Applications in Pharma Industry (TSCST-API 2015) held at Centre for Chemical Sciences and Technology, IST, JNTUH, Hyderabad on 16-18 December 2015
36. Raj Pala, **Dilip Kumar Behara**, S Saha, A Upadhyay, Design of Photoelectrochemical Materials Via Non-Native Nanostructures and Their Click Assembly into Photoreactors, ECS meeting abstracts, ECS Conference on Electrochemical Energy Conversion & Storage with SOFC–XIV, MA2015-03 July 26-31, 2015, Glasgow, Scotland
37. **B. Dilip Kumar**, Arun P Upadhyay, Gyan Prakash Sharma, Sri Sivakumar and Raj Ganesh S Pala, Colloidal Semiconductor-Metal-Semiconductor heterojunctions for Electro/Photoelectrochemical applications presented in 6<sup>th</sup> International Conference On Nano Science And Technology (ICONSAT), held at Chandigarh, Mohali, Punjab during 2-5<sup>th</sup> March, 2014 (has been selected and recommended for 'Top 100 Free Registration Initiative at ICONSAT-2014)

38. Arun P Upadhyay, **B. Dilip Kumar**, Gyan Prakash Sharma, Sri Sivakumar and Raj Ganesh S Pala, Highly stable Metallic nanoparticle- semiconductor heterostructures via Click chemistry for photo-electrochemical/photo-catalytic applications presented in 6<sup>th</sup> International Conference On Nano Science And Technology (ICONSAT), held at Chandigarh, Mohali, Punjab during 2<sup>nd</sup> -5<sup>th</sup> March, 2014
39. Gyan Prakash Sharma, **B. Dilip Kumar**, Arun P Upadhyay, Sri Sivakumar and Raj Ganesh S Pala, Highly stable Silicon-Graphene heterostructures for solar hydrogen production presented in 6<sup>th</sup> International Conference On Nano Science And Technology (ICONSAT), held at Chandigarh, Mohali, Punjab during 2 -5 March, 2014
40. Arun Prakash Upadhyay, **Dilip Kumar Behara**, Gyan Prakash Sharama, Anshumaan Bajpai, Regina Regan, Raj G Pala and Sri Sivakumar, presented poster entitled “Metal-semiconductor nanostructures for photoelectrochemical water splitting via “click chemistry” in ICMAT-2013, “7<sup>th</sup> International Conference on Materials for Advanced Technologies” held on 30<sup>th</sup> June-5<sup>th</sup> July 2013, Suntec, Singapore.
41. **Dilip Kumar Behara** presented a paper on “The Role of Primary (1<sup>o</sup>) alcohols in production of high yield biodiesel from sunflower oil” in CHEMCON-2016, The 69<sup>th</sup> annual Session of IChE, Chennai, India at Annamalai University, Chennai during 27-30 Dec 2016
42. Abdul Khadar, **Dilip Kumar Behara**, and Meda Kalyan Kumar, presented a paper on “Control Size TiO<sub>2</sub> Nanoparticles via Green Synthesis for electrochemical dye degradation studies” in CHEMCON-2016, The 69<sup>th</sup> annual Session of IChE, Chennai, India at Annamalai University, Chennai during 27-30 Dec 2016
43. Govardhan, **Dilip Kumar Behara**, M. Kalyan Kumar presented a paper on “TiO<sub>2</sub> doped Mg<sub>2</sub>Sn for thermo electric applications” in CHEMCON-2016, The 69<sup>th</sup> annual Session of IChE, Chennai, India at Annamalai University, Chennai during 27-30 Dec 2016
44. Dantham Tirupati Rao, P. Uma Maheswari, **Dilip Kumar Behara** and S.V. Satyanarayana presented a paper on “Novel PEBA/PANI composite membrane for Hydrazine-water separation using Pervaporation” in CHEMCON-2016, The 69<sup>th</sup> annual Session of IChE, Chennai, India at Annamalai University, Chennai during 27-30 Dec 2016
45. Sudhanva Desai, NCLN Charyulu, **Dilip Kumar Behara** and S.V. Satyanarayana presented a paper on “Statistical Optimization Studies for Removal of Chromium (VI) from Waste Water using Low Cost Acid Treated Tamarind Pod Shell” in CHEMCON-2016, The 69<sup>th</sup> annual Session of IChE, Chennai, India at Annamalai University, Chennai during 27-30 Dec 2016

46. **Dilip Kumar Behara** presented a paper on “Design of Photoelectrochemical Materials and Their Click Assembly into Photoreactors” in Nanotechnology and Science National conference organized by Nanomics Technologies Pvt. Limited, Bangalore at “The Park Hotel”, Hyderabad on 30-1-2016
47. **B. Dilip Kumar**, Arun P Upadhyay, Gyan Prakash Sharma, Sri Sivakumar and Raj Ganesh S Pala, Colloidal metal (Au)-semiconductor (Si,TiO<sub>2</sub>) heterostructures for Electro/photocatalytic/photoelectrocatalytic applications, presented in 66<sup>th</sup> Annual session of IChE, CHEMCON-2013, UCT, Mumbai during 27-30 December, 2013
48. Arun P Upadhyay, **B. Dilip Kumar**, Gyan Prakash Sharma, Sri Sivakumar and Raj Ganesh S Pala, Plasmonic Metal-Semiconductor hetrostructures via click chemistry for PEC water splitting, presented in 66<sup>th</sup> Annual session of IChE, CHEMCON-2013, UCT, Mumbai during 27-30 December, 2013
49. Gyan Prakash Sharma, **B. Dilip Kumar**, Arun P Upadhyay, Sri Sivakumar and Raj Ganesh S Pala, Highly stable Silicon-Graphene nanocomposites for solar hydrogen production, presented in 66<sup>th</sup> Annual session of IChE, CHEMCON-2013, UCT, Mumbai during 27-30 December, 2013
50. **B. Dilip Kumar**, B. Srinivas and S.V.Satyanarayana, Analysis of an equilibrium limited reaction in a packed bed with layered and mixed catalyst, presented in IChE National Conference, CHEMCON-2005, IIT Delhi during 14-17 December, 2005

- **National Conferences**

1. C Azra Raheen, Removal of Fluoride from ground water using Micellar Enhanced Ultrafiltration (MEUF) presented at Two day National Conference on Advanced Functional Materials Organized by JNTUA College of Engineering, Anantapur during 17-18 December 2020
2. M Madhavi Latha, Graphene Oxide as a flexible adsorbent for Methylene Blue degradation: Batch and Continuous studies presented at Two day National Conference on Advanced Functional Materials Organized by JNTUA College of Engineering, Anantapur during 17-18 December 2020
3. Gowri Manusha, Biosorption of Methylene Blue by Activated Carbon prepared from Tamarindus Indica seeds presented at Two day National Conference on Advanced Functional Materials Organized by JNTUA College of Engineering, Anantapur during 17-18 December 2020

4. C Yaswanth Kumar Reddy, B Dilip Kumar, T Bala Narsaiah, SV Satyanarayana, Preparation and Characterization of Polyether Sulfone Membrane and its application in Removal of Fluoride from Ground Water using Micellar Enhanced Ultrafiltration (MEUF) presented at Two day National Conference on Advanced Functional Materials Organized by JNTUA College of Engineering, Anantapur during 17-18 December 2020
5. Sruthi Lingampalli, Dilip Kumar Behara, Murraya Koenigii leaves: A Sustainable Corrosion Inhibitor for Carbon Steel in Acidic and Alkaline Climatic Conditions, 35<sup>th</sup> National Convention of Environmental Engineers & National Conference on “Green Technology for Clean and Green India”, 17-18 August 2019, Bangalore
6. Alladi Srinivasulu, V Ramasubbaiah, Dilip Kumar Behara, One Pot Green Synthesis of Mixed Metal/Metal Oxide Nanocomposites for Catalytic dye degradation Studies, 35<sup>th</sup> National Convention of Environmental Engineers & National Conference on “Green Technology for Clean and Green India”, 17-18 August 2019, Bangalore
7. Gattu Meghanath, Electro-coagulation as a Novel Approach for Treatment of Wastewater, 35<sup>th</sup> National Convention of Environmental Engineers & National Conference on “Green Technology for Clean and Green India”, 17-18 August 2019, Bangalore
8. N. Khaja Moin, A Rajasekhar Babu, B. Dilip Kumar, P Dinesh Sankar Reddy, DST-SERB sponsored 1<sup>st</sup> International Conference on “Recent Advances in Polymer Technology and industrial Applications (RAPTIA-2017), 17-18 Feb 2017, Guru Nanak Institutions, Hyderabad
9. Jalajakshi T, Sudha Maheswari M, and Dilip Kumar Behara, “TiO<sub>2</sub>/ZnO: Type-II heterostructures for Electrochemical dye degradation studies”, Two day National Conference on Pollution control strategies in chemical and related industries (PCSCRI-2017), 10-11 March 2017, SV University College of Engineering, Tirupati, AP (*selected for oral presentation*)
10. Sudha Maheswari M, Jalajakshi T, and Dilip Kumar Behara, “TiO<sub>2</sub>/Fe<sub>2</sub>O<sub>3</sub>: Type-I heterostructures for Electrochemical dye degradation studies”, Two day National Conference on Pollution control strategies in chemical and related industries (PCSCRI-2017), 10-11 March 2017, SV University College of Engineering, Tirupati, AP (*selected for oral presentation*)
11. Vishnu Priya Devangam, **Dilip Kumar Behara**, “Cyclic Voltammetry: An inexpensive tool to understand the electrochemical kinetics-A short review ”, Two day National Conference on Pollution control strategies in chemical and related industries (PCSCRI-2017), 10-11

March 2017, SV University College of Engineering, Tirupati, AP (*selected for oral presentation*)

12. Pooja Sree P, **Dilip Kumar Behara** presented paper on “Understanding the electrochemical kinetics/mechanism of dye degradation-A perspective review”, Two day National Conference on Pollution control strategies in chemical and related industries (PCSCRI-2017), 10-11 March 2017, SV University College of Engineering, Tirupati, AP (*selected for oral presentation*)
13. Pradeep Kumar G, Dinesh P, V Archana, Uma Maheswari P, and **Dilip Kumar B**, “Understanding Anisotropic membranes for Pervaporation Separation of Aqueous Solutions via Mathematical Modeling”, Two day National Conference on Pollution control strategies in chemical and related industries (PCSCRI-2017), 10-11 March 2017, SV University College of Engineering, Tirupati, AP
14. B. Harinath Reddy, **B. Dilip Kumar** and M. Kalyan Kumar, “Effects of Nano-TiO<sub>2</sub> and Nano-Fe<sub>2</sub>O<sub>3</sub> on properties of various types of concretes-Review”, Two day National Conference on Pollution control strategies in chemical and related industries (PCSCRI-2017), 10-11 March 2017, SV University College of Engineering, Tirupati, AP
15. Sravani, **B. Dilip Kumar** and M. Kalyan Kumar, “Synthesis of TiO<sub>2</sub>-Ag nanocomposites via green route for antimicrobial and dye degradation studies”, Two day National Conference on Pollution control strategies in chemical and related industries (PCSCRI-2017), 10-11 March 2017, SV University College of Engineering, Tirupati, AP
16. Vishnu Priya Devangam, **Dilip Kumar Behara**, “Green Electrochemistry: Electrochemical Approaches For Pollution Free Environment”, National seminar on “Advances in Green Chemistry”, 28-29 January 2017, Sri Neelam Sanjeeva Reddy Arts, Science & Commerce College, Velgode-518533, Kurnool
17. Pooja Sree P, **Dilip Kumar Behara** presented paper on “Green Electrochemistry: A Perspective Approach of Electrochemistry to the Present Science”, National seminar on “Advances in Green Chemistry”, 28-29 January 2017, Sri Neelam Sanjeeva Reddy Arts, Science & Commerce College, Velgode-518533, Kurnool
18. Sravani, Dilip Kumar Behara and Kalyan Kumar M, “Green Synthesis of TiO<sub>2</sub>-Ag Nanoparticles for medical applications” National seminar on “Advances in Green Chemistry”, 28-29 January 2017, Sri Neelam Sanjeeva Reddy Arts, Science & Commerce College, Velgode-518533, Kurnool
19. Vishnu Priya Devangam, Pooja P, **Dilip Kumar Behara** presented paper on “Environmental Electrochemistry: Importance and Opportunities”, A two day UGC,

APSCHE sponsored National Seminar on Role of Chemistry in Human Health and Environmental Protection, 30-31 January 2017, Government College, Anantapuramu

20. Pooja P, Vishnu Priya Devangam, **Dilip Kumar Behara** presented paper on “Environmental Electrochemistry: Fundamentals and Applications in Pollution Abatement”, A two day UGC, APSCHE sponsored National Seminar on Role of Chemistry in Human Health and Environmental Protection, 30-31 January 2017, Government College, Anantapuramu
21. Ravi Kumar G, **Dilip Kumar Behara** presented a paper on “Green Technology: An alternative methodology for effective removal of Chromium (IV) ions using Guava Leaves”, A two day UGC, APSCHE sponsored National Seminar on Role of Chemistry in Human Health and Environmental Protection, 30-31 January 2017, Government College, Anantapuramu
22. **B. Dilip Kumar**, A.V.N. Swamy, H<sub>2</sub> production in a tubular photobioreactor by means of a sulfur-deprived culture of the microalga *Chlamydomonas reinhardtii*, National level Conference on “Recent trends in Downstream processing”, JNTUA College of Engineering, Pulivendula, on 5-6 January, 2012.

• **Projects**

S. No	Title of the Project	As PI/CoPI	Funding Agency	Year of Sanction	Amount (in Rs Lakhs)	Status (Completed/In progress)
1	“Parametric estimation using Booth strap technique for single and multi-response models”	Co-PI	AICTE-RPS	2007-2010	18 Lakhs	Completed
2	Physicochemical Studies of TiO <sub>2</sub> /Fe <sub>2</sub> O <sub>3</sub> /ZnO Heterostructure Assemblies for Electrochemical Water Splitting/Dye Degradation Applications	PI	UGC, Govt. of India	2017	1.2	Completed
3	Physicochemical studies of Type - I/II heterostructure assemblies for electrochemical water splitting/ dye degradation applications	PI	IEI, R&D grant in aid	17	0.7	Completed
4	Development of		DST-SERB	2018-2021	32.78	Completed



	highly stable mixed matrix membranes (MMM) for dehydration of hydrazine hydrate via Pervaporation for rocket fuel applications	Co-PI	EMR			
5	Nanoparticle Enhanced Phase Change Material Microcapsules/Fibers for Advanced Energy Storage and Allied Applications”	PI (I/c)	DST-SERB EMR	2018-2021	37.83	Completed
6	Climate Smart Cultivation of Groundnut and Tomato with Value Addition for Scheduled Cast Population in Anantapur District, Andhra Pradesh	Co-PI	DST-SERB STI Hub	2022	160.00	(submitted-Under Review)
7	Integrated processing technologies for food and agricultural by-products for improving the livelihood of Scheduled Tribe Population in Sri Sathya Sai District, Anantapur	Co-PI	DST-SERB SC-ST Hub	2022	170.00	(submitted-Under Review)
8	Heteroatom Doped metal oxide heterostructures and nanocarbons as efficient electro-catalysts for electro-catalytic applications	PI	RUSA, Govt of India	2021	19.25 Lakhs	(submitted-Under Review)
9	Synthesis & Characterization of Mixed Matrix Membranes (MMM) for Esterification/Etherification Reactions in Pervaporation	Co-PI	RUSA, Govt of India	2021	17 Lakhs	(submitted-Under Review)

	Membrane Reactors					
10	Crossing the Barriers at Anode Interface with Ionic Liquid Additives for the Commercialization of Grid Energy Storage Devices	Co-PI	DST-SERB under Intensification of Research in High Priority Areas (IRHPA)	2021	62.22 Lakhs	(submitted-Under Review)
11	Modulating electron-hole migration in Photoelectrochemical (PEC) water splitting reaction: A case study with doped metal oxide and associated Type-I/II heterostructures	PI	DST-SERB EMR	2022	----	Submitting the proposal
12	Understanding molecular mechanism of Wollastonite Powder as Binder to mechanical studies	PI	DRDO, Hyderabad	2022	----	Submitting the proposal
13	Uranium Studies at Tummalapalli Village	Co-PI	BARC, Mumbai	2022	----	Submitting the proposal

- Consultancy Projects**

S. No	Title of the Project	Funding Agency/Total Amount	Principal/Co-Principal Investigator	Year	Status
1	Electro/Photo-electrochemical Studies of Metal Oxides	Kanopy Techno Solutions (Project cost: 75,000/-)	Research Consultant	Jan 2016	Completed
2	Electrochemical techniques for heavy metal ions detection with different sensing platforms	Kanopy Techno Solutions (Project cost: 2,12,000/-)	Research Consultant	Feb 2019	On going
3.	Electrochemical techniques in detection and removal of pharmaceuticals from waste water streams	MedieTronix Labs Pvt. Ltd 10.22 Lakhs	Research Consultant	Dec 2022	On going

3	Ionic Liquid-based Additives in Electrolyte for the Corrosion Resistance in Lead-Acid Batteries	Amara Raja Batteries, Tirupati	Co-Principal Investigator	About to submit	Draft is ready
4	Extraction of Mn and preparation of Mangane Octoate (paint additive) from Waste Manganese GCP fumes	Nava Bharat Ventures Ltd, Paloncha, India (Project cost: 50, 000/-)	Principal Investigator	On process	Submitted the Proposal
5	Study of Binders/Additives in improving the strength of Coal Briquettes (Santek India Of Delhi)	Nava Bharat Ventures Ltd, Paloncha, India (7.2 Lakhs)	Principal Investigator	On process	Submitted the Proposal
6	Surface Functionalization of Additives (positive and negatives plates, electrolyte) for performance improvement of Lead Acid Batteries	Amara Raja Batteries, Tirupati, Chittor District	Co-Principal Investigator	On process	Submitting the Proposal
7	Development of Polymeric Membranes for Alcohol Sensors for Industrial Applications	Alco Brake Industries, Madapur, Hyderabad	Co-Principal Investigator	On process	Submitting the Proposal
8	Development of Medicinal products Using Banana Waste Pseudo Stem	AIC, SKU, Anantapur	Co-Principal Investigator	On process	Submitting the Proposal

- Awards & Honors**

1. Best Third Prize in Oral Paper Presentation is awarded Third prize in Oral Session under the Theme "Sustainable Technologies" held at the SCHEMCON-2022 held at National Institute of Technology, Warangal during 23 and 24 September 2022.
2. Advisory Committee Member, The Co University-'PChEHMS 7000' Certification to Industries, Hyderabad
3. Core Team Member, **APEAPCET-2022**, State Level Entrance Test for Engineering, Pharmacy and Agricultural Streams conducted by JNTU Anantapur, Anantapuramu

4. Primary Evaluator, **Toycathon- 2021**, organized by Ministry of Education Innovation cell in collaboration with AICTE, New Delhi
5. Elevated to **IEEE Senior Member** from April 2021 onwards
6. Applied to Fellow, IET, Anantapur Local Center, December 2022
7. NPTEL Material Science & Engineering April 2020 course completion Certificate
8. **Best Paper and Poster Award**, for the paper entitled “Design and Fabrication of Multipurpose Ultra Filtration Membrane Cell” in International Conference on RACE-2020 organized by Osmania University, Hyderabad during 8-9<sup>th</sup> January 2020.
9. Member, **Board of Studies (BOS)** for Chemical Engineering UG Program of JNTUA College of Engineering, Anantapur from August 2022 onwards till date
10. Member, **Board of Studies (BOS)** for Food Technology PG Program of JNTUA Kalikiri, Chittoor from October 2021 onwards till date
11. Member, **Board of Studies (BOS)** for Food Technology UG Program of JNTUA Kalikiri, Chittoor from October 2019 onwards till date
12. Special Invitee, **Board of Studies (BOS)** for Chemical Engineering Program of JNTUA CE, Anantapur for year 2019
13. Received **District Best NSS Program Officer Award for Anantapur District** from NSS Cell, JNT University Anantapur, Anantapuramu on 16-02-2018
14. Received **Gandhian Young Innovation Technological (GYIT) award** from SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions) for innovative student/faculty projects in engineering, pharmacy, science and applied technologies for the project entitled “Highly stable Metallic nanoparticle- semiconductor heterostructures via Click chemistry for photo-electrochemical/photocatalytic applications” on 29<sup>th</sup> March 2014 at IIM-Ahmedabad. Award consists of a memento and certificate and is received from Padmabhushan Dr. R.A. Mashelkar, President, Global research alliance and Chairman, NIF.
15. Awarded third prize in **PRIME 83 Innovation award** for project entitled “Fabrication of Novel Photocatalyst via click chemistry for Hydrogen Production”, held at IIT Kanpur on 3<sup>rd</sup> Oct 2013
16. **Best Young Research Award** for the year 2017 from GRABS Educational Charitable Trust, Chennai awarded on 22<sup>nd</sup> January, 2017
17. **B. Dilip Kumar**, Arun P Upadhyay, Gyan Prakash Sharma, Sri Sivakumar and Raj Ganesh S Pala, Colloidal Semiconductor-Metal-Semiconductor heterojunctions for Electro/Photoelectrochemical applications has been selected and recommended for **'Top 100**

**Free Registration Initiative** at ICONSAT-2014 (6<sup>th</sup> International Conference On Nano Science And Technology)

18. **Research Consultant** for electrochemical and photoelectrochemical measurements, analysis and testing of apparatus, Kanopy Techno Solutions, C/o SIDBI center, IIT Kanpur(UP), India
19. **Best oral presentation** in nanomaterial category for the paper entitled “Plasmonic Metal-Semiconductor heterostructures via click chemistry for PEC water splitting” presented by Arun P Upadhyay, **B. Dilip Kumar**, Gyan Prakash Sharma, in CHEMCON-2013, held at UCT, Mumbai during 27-30 December, 2013
20. **Nodal Teacher** to monitor the activities of Gender Champions of JNTUA College of Engineering, Anantapur for a period of one year (from 1st September 2015 to till date)
21. Awarded with “**Silver Zone Award**” for the institute from Indian Association for the Blind (IAB), Tamil Nadu on 19<sup>th</sup> Feb 2016 as National Service Scheme (NSS) Program Officer

- **Invited Talks:**

1. Taken 5 lectures on Fuel Cell Hybrid Electric Vehicles for B. Tech (EEE) students of JNTUA College of Engineering Kalikiri, Chittoor
2. Invited talk on “Novel Materials for Sustainable Energy Conversion and Storage”, One Week Faculty Development Programme on “Novel Materials for Industrial Applications” sponsored by ATAL Academy Programmes, AICTE, New Delhi at JNTUA College of Engineering (Autonomous), Pulivendula, YSR Kadapa District scheduled during 4<sup>th</sup> to 8<sup>th</sup> October 2021.
3. Invited talk on “Why students must know about Intellectual Property Rights (IPR)”, to the Research Scholars of JNTUA, Orientation Program on IPR conducted by R&D Cell, JNTUA on 01-08-2021
4. Invited talk on “Renewable Energy for Sustainable Development: Solar Energy Perspectives” in One week Faculty Development Program on “Renewable & Clean Energy Conversion Technologies” Twinning Program in Collaboration with UCET, Bikaner, Rajasthan from 4<sup>th</sup> to 8<sup>th</sup> January 2021
5. Invited talk from Indian Institute of Metals (IIM), Paloncha student chapter at NBV, Kothagudem on topic “Overview of Biomass Derived Materials: Alternative to fuels to boilers and reductants to furnaces”
6. Delivered a talk on “Numerical solution of ODEs and PDEs using MATLAB” at AICTE sponsored Two week FDP on “Mathematical Modelling & Simulation for Scientists and

Engineers” held at Dept. of Chemical Engineering, JNTUA CEA from 24<sup>th</sup> Feb 2020 to 7<sup>th</sup> March 2020.

7. Delivered Lecture on “Material Science” for III, IV B.Tech Students of Ceramic Engineering, UCET, Bikaner, Rajasthan on 12<sup>th</sup> September 2019
8. Delivered Talk on “Electro-Ceramics- Materials, Properties, & Applications”, at Three Day National Workshop on “Electro-ceramics: Synthesis, Characterization and Device Applications, organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur in association with Ceramic Engineering, UCET, Bikaner, Rajasthan, from 11-13 September 2019
9. Delivered an invited Talk on “Excel: Basics and Descriptive Statistics”, at One week Faculty Development Program (FDP) on “Skill Enhancement for Non-Teaching Staff”, organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur from 15-20 July 2019
10. Delivered Invited talks on “Optimization of Chemical Processes” for IV & III B. Tech students at RGUKT, IIIT Campus, RGUKT, RK Valley, Idupulapaya, Kadapa on 06-04-2019
11. Delivered an invited talk on “Electrochemistry and Electrochemical Processes for Energy and Environment” at Enrich 2k19, National Level Technical Symposium organized by RGUKT, IIIT Campus, RK Valley, Idupulapaya, Kadapa on 28-03-2019
12. Delivered an invited Talk on “Cyclic Voltammetry: The Investigation of Electrolysis Mechanisms”, at Three day Work shop on “ Experimental Approaches & Instrumental Aspects in Analytical Chemistry”, organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur from 6-8 February 2019
13. Delivered expert lecture on “Corrosion/Environmental Degradation of Materials: A Material Science Perspective” in AICTE Sponsored Two Week Faculty Development Program (FDP) on “Recent Innovations in Unit Operations for Pharmaceutical Industries Organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur from 20<sup>th</sup> November to 2<sup>nd</sup> December 2017
14. Delivered an expert lecture on “Click-Chemistry of Soft-Materials: A Solar Energy Perspective” at One day work shop on “Self-Assembly of Soft Materials and Their Applications in Energy” organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur on 1<sup>st</sup> September 2017
15. Delivered an invited talk on “Design of Photoelectrochemical Materials and Their Click Assembly into Photoreactors” in Nanotechnology and Science National conference

organized by Nanomics Technologies Pvt. Limited, Bangalore at “The Park Hotel”, Hyderabad on 30-1-2016

16.

- **Reviewer**

1. Honorary Rosalind Member of London Journals Press (Membership ID: #NJ77865)
2. Reviewer, Journal of the Institution of Engineers (India): Series E
3. Reviewer, International Journal of Nano Dimension
4. Reviewer, Iranian Journal of Chemistry & Chemical Engineering
5. Reviewer, Material Science Research India (MSRI) Journal
6. Peer Reviewer, Journal of Energy, Environmental & Chemical Engineering, Science Publishing Group (SciencePG)
7. Reviewer, International Journal of Advanced Research and Case Reports (IJARCR)
8. Reviewer, International Journal of Advanced Research (IJAR)
9. Reviewer for International Journal of Advanced and Applied Sciences (IJAAS)
10. Member, International Editorial Advisory Board, International Journal of Latest Technology in Engineering, Management & Applied Science
11. Editorial Board Member, SCIREA Journal of Chemical Engineering

- **Session Chairs**

1. Session Chair, One week Faculty Development Program on “Renewable & Clean Energy Conversion Technologies” Twinning Program in Collaboration with UCET, Bikaner, Rajasthan from 4<sup>th</sup> to 8<sup>th</sup> January 2021
2. Appreciation Certificate, CHEMCON-2020 organized by IChE Head Quarters and IChE Hyderabad regional center during December 27-29, 2020
3. Session Chair, AICTE sponsored Two week FDP on “Mathematical Modelling & Simulation for Scientists and Engineers” held at Dept. of Chemical Engineering, JNTUA CEA from 24<sup>th</sup> Feb 2020 to 7<sup>th</sup> March 2020
4. Session Chair, Two Day Workshop on “Two-day Workshop on “Materials for Energy Conversion & Storage Devices”, organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur under TEQIP-III during 27-28 December 2019
5. Appreciation Certificate for being Treasurer to the International Conference on System Automation, Reliability, Quality Control, Safety, Maintenance & Management, organized by JNTUA CEA from 11-13 Dec 2019

6. Session Chair, Two Day Workshop on “Waste Management”, organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur under TEQIP-III during 13-14 November 2019
7. Session chair for One day National Conference on “Recent Innovations in Chemical Engineering/FUSION-2k19”, organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur under TEQIP-III on 30<sup>th</sup> March 2019
8. Session chair for Three day Work shop on “Experimental Approaches & Instrumental Aspects in Analytical Chemistry”, organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur under TEQIP-III in association with Kanopy Techno Solutions, SIDBI Incubation center, IIT Kanpur (UP) during 6-8<sup>th</sup> February 2019
9. Acted as Judge for “Online Seminar on Gandhian Philosophy” organized by JNTUA College of Engineering, Anantapuramu NSS Cell (Unit-I) on 27<sup>th</sup> September 2020
10. Acted as Judge for one of the literary events of State NSS Youth Festival, University level competitions at JNTUA, Anantapur on 29<sup>th</sup> January 2016
11. Acted as Judge for Technical session (Green Technology) at SCHEMCON-2016, Student Chemical Engineering Congress conducted at BVRIT, Narsapur, Hyderabad on 10-11 September 2016
12. Acted as Judge for Technical/Poster session at International Conference on “Trend Setting Innovations in Chemical Sciences and Technology-Nature Inspired Chemistry and Engineering (TSCST NICE)-NICE-2016, conducted by JNTUH, Hyderabad during 4-6<sup>th</sup> Oct 2016
13. Acted as session chair for technical session (Photoreactors) for “Assessment of the State of the Art in Chemical Engineering Science” jointly organized by Sathish Dhawan Space Centre (SHAR), Srihari Kota and Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapuramu on 7<sup>th</sup> Aug 2015
14. Acted as Judge for one of the literary events of Yuvatharangam-2015, University Level Competitions at JNTUA, Anantapur on 30<sup>th</sup> September 2015
15. Acted as Judge for one of the Technical Session, National level student’s symposium "AAVIRBHAV '09" which was held at JNTUACE, Pulivendula, 14-15 October 2009.

• **Most Prestigious Jobs/Tasks Assigned**

1. Chief Guest, Chemical Engineering Association, SV University, Tirupati
2. Chief Guest, Science Day Celebrations, GATES Institute, Gooty, 2020



3. Primary Evaluator, Toycathon 2021, Ministry of Education & Ministry of MSME, AICTE program
4. Judge for National Mega Expo 2022, organized by Skill Development and Incubation Center, JNTUA on 28<sup>th</sup> February 2022
5. Guest of Honor, AICTE sponsored Six Day Short Term Training Program on “ Applications of QbD and other Computational tools in Pharmaceutical Product Development: Current Trends and Future perspective”, Organized by Annamacharya College of Pharmacy, Rajampeta, Kadapa during 30<sup>th</sup> August to 4<sup>th</sup> September 2021
6. Elevated to IEEE Senior member from April 2021 onwards.
7. Member, Open Seminar/Pre-talks for Pharmacy Research Scholars of JNTUA Anantapuramu from March 2021 onwards
8. Steering Committee member, Platinum Jubilee celebrations, 75 years of existence of JNTUA College of Engineering, Anantapur
9. Member, 20<sup>th</sup> Research Review Meeting (RRM) conducted for PhD Research Scholars of JNTUA on 01-02-2021 for Chemical Engineering Stream
10. Member, 20<sup>th</sup> Research Review Meeting (RRM) conducted for PhD Research Scholars of JNTUA on 04-02-2021 to 06-02-2021 for Pharmacy Stream
11. Member, Open Seminar for PhD Research Scholar (Pharmacy Stream) of JNTUA on 01-02-2021
12. Member, Scrutiny Committees for evaluation of FFC Inspections reports-2020, appointed by Director, Academic Audit, JNTUA, Anantapur
13. Member, 19<sup>th</sup> Research Review Meeting (RRM) conducted for PhD Research Scholars of JNTUA on 14-09-2020 for Chemical Engineering Stream
14. Member selection committee, APRCET-2019, Food Technology Division, held at Administrative building, JNTUA on 13<sup>th</sup> Feb 2020.
15. Principal Investigator (I/c), DST-SERB Project entitled “Nanoparticle Enhanced Phase Change Material Microcapsules/Fibers for Advanced Energy Storage and Allied Applications” for an amount of Rs 37.83 Lakhs from 29-10-2019 to till date
16. Department Coordinator, IQAC, Chemical Engineering, JNTUA College of Engineering (Autonomous), Anantapuramu from 16-11-2019 to till date
17. Department Coordinator, NAAC Accreditation, Chemical Engineering, JNTUA College of Engineering (Autonomous), Anantapuramu from 31-08-2019 to till date
18. Treasurer, International Conference on System Automation, Reliability, Quality Control, Safety, Maintenance & Management, organized by JNTUA CEA from 11-13 Dec 2019

19. Member, Equipment specification committee-Food Technology Labs for JNTUA College of Engineering, Kalikiri, Chittor District for the year 2019
20. Member, Cognizant Foundation Scholarship Scheme, Committee to scrutiny and evaluate the applications for scholarship award for the year 2019
21. Member, Departmental Research Committee (DRC), in conduct of RRM's and Pre-submission Open Seminars for the academic year 2019-20 from 25-07-2019 to till date.
22. Department Coordinator, NBA Accreditation, Chemical Engineering, JNTUA College of Engineering (Autonomous), Anantapuramu from 02-12-2018 to till date
23. Coordinator, GATE (Under TEQIP-III) for JNTUA College of Engineering (Autonomous), Anantapuramu from 16-02-2018 to till date
24. Member, 18<sup>th</sup> Research Review Meeting (RRM) conducted for PhD Research Scholars of JNTUA on 11-09-2019 for Chemical Engineering Stream
25. Member, 17<sup>th</sup> Research Review Meeting (RRM) conducted for PhD Research Scholars of JNTUA on 28-01-19 for Food Technology Stream
26. Member, 16<sup>th</sup> Research Review Meeting (RRM) conducted for PhD Research Scholars of JNTUA on 27-08-18 for Chemical Engineering Stream
27. Member, 15<sup>th</sup> Research Review Meeting (RRM) conducted for PhD Research Scholars of JNTUA on 08-01-18 for Chemical Engineering Stream
28. Expert Member, PhD Supervisor Selection Scrutiny, conducted for eligible supervisor working in JNTUA Affiliated colleges on 30-10-18
29. Organizing member, Freshers Day-2019, for the academic year 2019
30. Member, Scrutiny committee for evaluating Supervisors to guide PhD Scholars of constituent and affiliate colleges of JNTUA, Anantapur for the year 2019
31. Coordinator, FUSION-2k18, National Level Technical Symposium, organized by Dept of Chemical Engineering in association with TEQIP-III and IChE Students Chapter, 27<sup>th</sup> March, 2018
32. Coordinator, University Level TECH FEST-2018 organized on 27-01-2018 at JNTUA CE, Anantapur (Approximately 2000 participants across Five Districts of AP)
33. A.P operation Team Member from JNTUA, APSCHE British Council on English Communication and soft skills from 8-5-2017 to till date (for 15 months)
34. Confidential Team member, AP EAMCET-16, conducted by JNTUK from 1<sup>st</sup> May 2016 to 8<sup>th</sup> May 2016.

35. Liaison officer, “RainGun-Awareness campaign to train farmers of the villages” conducted by Government of AP from 29-8-16 to 3-9-16 at different mandals/panchayat divisions of Anantapuramu district, Andhra Pradesh
36. Member, NAAC accreditation committee, JNTUA College of Engineering, Anantapur for the academic year 2010-2011
37. Member, NAAC accreditation committee, JNTUA, Anantapur for the year 2016-17
38. Scrutiny Officer, JNTUA affiliated college faculty ratification process during 3 -5 Oct 2016 at JNTUA, Anantapur
39. Member, 14<sup>th</sup> Research Review Meeting (RRM) conducted for PhD Research Scholars of JNTUA on 7-8-17
40. Certificate verification committee member, PhD admissions-for the year 2018-19.
41. Scrutiny Officer, JNTUA affiliated college faculty ratification process during 29 -31 Nov 2016 at JNTUA, Anantapur
42. Scrutiny Officer, JNTUA affiliated college faculty ratification process during 17 -18 May 2017 at JNTUA, Anantapur
43. Scrutiny Officer, PhD Supervisor selection for JNTUA affiliated colleges during 31<sup>st</sup> Oct-2<sup>nd</sup> Nov 2016 at JNTUA, Anantapur
44. Coordinator, IChE Student Chapter, Anantapuramu Local Chapter from 3<sup>rd</sup> Nov 2016 to till date
45. Nodal Officer, JNTUA CE and JNTUA affiliated colleges, “Awareness rally on cashless transactions” in Anantapuramu District on 6-12-16
46. Committee member, Souvenir preparation-70 years of existence of JNTUA College of Engineering, Anantapur

- **Events/Training Programs conducted/organized**

1. Convener, One week Faculty Development Program on “Renewable & Clean Energy Conversion Technologies” Twinning Program in Collaboration with UCET, Bikaner, Rajasthan from 4<sup>th</sup> to 8<sup>th</sup> January 2021.
2. Joint Coordinator, Five Day National Level Faculty Development Program for Educators of Environmental Studies”, 21-25 September 2020 organized by Dept. of Chemical Engineering, JNTUA CEA.
3. Coordinator, One Week online Faculty Development Program on “Management of Online Teaching, Learning and Assessment in Higher Education”, 12-16 September 2020 organized

by Dept. of Chemical Engineering, JNTUA CEA and Dept of Ceramic Engineering, UCET, Bikaner, Rajasthan

4. Co-coordinator, AICTE sponsored Two week FDP on “Mathematical Modelling & Simulation for Scientists and Engineers” held at Dept. of Chemical Engineering, JNTUA CEA from 24<sup>th</sup> Feb 2020 to 7<sup>th</sup> March 2020
5. Two Day Workshop on “Two-day Workshop on “Materials for Energy Conversion & Storage Devices”, organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur during 27-28 December 2019 under TEQIP-III
6. Two Day Workshop on “Waste Management”, organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur during 13-14 November 2019 under TEQIP-III
7. One Day Guest Lecture on Chemical Engineering & Food Technology-Prospects & Opportunities, on 6<sup>th</sup> September 2019 at Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur
8. Three day Work shop on “Electro-Ceramics-Synthesis, Characterization and Device Applications”, A Twinning program organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur from 11-13 September 2019 at UCIT, Bikaner, Rajasthan under TEQIP-III in association with UCIT, Bikaner, Rajasthan
9. Three day Work shop on “ Experimental Approaches & Instrumental Aspects in Analytical Chemistry”, organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur from 6-8<sup>th</sup> February 2019 under TEQIP-III in association with Kanopy Techno Solutions, SIDBI Incubation center, IIT Kanpur (UP)
10. One day work shop on “Self Assembly of Soft Materials and Their Applications in Energy” organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur on 1<sup>st</sup> September 2017 under Institution of Engineers (IEI) and UGC XII funds at JNTUA College of Engineering, Anantapuramu
11. One day work shop on “The role of Chemical Engineers in Electrochemical Industries”, in collaboration with Kanopy Techno Solutions, Kanpur (UP) on 27<sup>th</sup> March 2017 under UGC XII funds (industry-institute interaction) at JNTUA College of Engineering, Anantapuramu
12. One day “Intensive Hands on Training Program on Fundamentals and Usage of X-ray Diffraction” organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur on 24<sup>th</sup> September 2016 under UGC XII funds (Students Career and Counseling) at JNTUA College of Engineering, Anantapuramu
13. One month Yoga cum meditation camp (Free of admission fee) for students, staff and faculty of JNTUA College of Engineering, Anantapur from 14-7-16 to 15-8-16

14. One month Yoga cum meditation camp (Free of admission fee) for Girl students of JNTUA College of Engineering, Anantapur from 22-08-2016 to 21-09-2016
15. Organized World Youth Skills Day on 15<sup>th</sup> July 2016 under NSS activity by NSS cell of JNTUA, Anantapuramu.
16. Four week Self Defence Training Program for Girl students from 25<sup>th</sup> July to 21<sup>st</sup> August 2015 under National Service Scheme (NSS) and Women Empowerment Cell coordination at JNT University Anantapur, Anantapuramu
17. State NSS Youth Festivals-2016, University level competitions at JNTUA, Anantapur on 29<sup>th</sup> January 2016
18. Organizer, World Youth Skills Day and released NSS Audio Songs on 15<sup>th</sup> July 2016 in association with NSS Cell of JNT University Anantapur
19. Co-organizer, College day and sports day, JNTUA College of Engineering, Anantapur, Anantapuramu held on 1 -2 March 2016
20. Co-organizer, College day and sports day 2016, JNTUA College of Engineering, Anantapur, Anantapuramu held on 1 -2 March 2016
21. Yuvatharangam-2015, Cultural and literal events/competitions at University Level at JNTUA, Anantapur on 30<sup>th</sup> September 2015
22. Co-coordinator, Two day Workshop on “Combating Climate Change”, conducted by Department of Chemical Engineering, JNTUA CE, Anantapur on 18 -19 March 2010.
23. Coordinator, FUSION-10, A National level Students Seminar for Chemical Engineering Students conducted by Department of Chemical Engineering, JNTUA CE, Anantapur on 17<sup>th</sup> September 2010.
24. Co-coordinator, Two day Workshop on “Academic Exchange Program on Membrane Technology”, conducted by Department of Chemical Engineering, JNTUA CE, Anantapur on 30 -31 March 2009
25. Co-coordinator, FUSION-08, A National level Students Seminar for Chemical Engineering Students conducted by Department of Chemical Engineering, JNTUA CE, Anantapur on 12<sup>th</sup> September 2008
26. Coordinator, Community service program on “Fruit collection, packing, processing and transportation” at Papampalli village, Atmakaur, Anantapur district on 12<sup>th</sup> Oct 2008
27. Co-coordinator, FUSION-07, A National level Students Seminar presentation for Chemical Engineering Students conducted by Department of Chemical Engineering, JNTUA CE, Anantapur on 30<sup>th</sup> August 2007

28. Coordinator, Community service program on “Personality development Through Meditation” conducted by Department of Chemical Engineering, JNTUA CE, Anantapur at JNTUA College of Engineering, Anantapur on 13<sup>th</sup> Feb 2009

29. Developed Reliability Testing (RT) laboratory for M. Tech Program in Reliability Engineering at JNTUA College of Engineering, Anantapur for 2007-2008 Batch.

• **Workshops / Courses / Conferences Attended/Organized**

❖ *Total no of Workshops/FDPs attended: 25, Organized: 15; Total no of Short term courses attended: 08, Organized: 02; Total no of Seminars attended: 01, Organized: 03 (As on 09-10-2020).*

S. No	Title of the Conference/workshop/Course	Period	Place
1	Two day National Level Workshop on <b>“Aspen plus &amp; Its Applications”</b>	18-19 November 2005	JNTUA College of Engineering, Anantapur
2	Four day Short term Intensive course on <b>“Advanced Separation Processes”</b>	21-24 November 2005	Vignan’s Engineering College, Guntur.
3	<b>One day National Workshop on “Pollution Control Methodology”</b>	18 <sup>th</sup> March 2006	M.V.G.R. College of Engineering, Vizianagaram
4	Three day Short term Intensive course on <b>“Design of Experiments and Analysis”</b>	21- 24 November 2007	IICT, Tarnaka, Hyderabad.
5	Three day Short term Intensive course on <b>“Engineering Problem solving Using MATLAB”</b>	18-20 February 2008	GVP College of Engineering, Visakhapatnam.
6	Six day Intensive course (Teacher training Program) on <b>“Total Quality in Pedagogical Training in Engineering Education”</b>	23-28 February 2009	Engineering Staff College of India (ESCI), Gachibowli, Hyderabad
7	Three day Advanced Short term course on <b>“Nano materials And Nano Technology &amp; overview (NANO)-2009”</b>	5-7March 2009	A.U. College of Engineering (A), Andhra University, Visakhapatnam.
8	Two day Workshop on <b>“Free Software-A Research perspective”</b>	12-13 March 2009	Computer science and Engineering Department, JNTUA College of Engineering, Anantapur
9	One day Workshop on <b>“Formal and Web based Methodologies for Effective Research”</b>	23 <sup>rd</sup> March 2009	Mechanical Engineering Department, JNTUA College of Engineering, Anantapur
10	One day National Seminar on <b>“Green Process Technologies”</b>	10 <sup>th</sup> April 2010	Golden Jubilee Celebrations of IChE Hyderabad regional

			center, Hyderabad
11	4 weeks “ <b>Orientation course</b> ”	24 <sup>th</sup> June to 21 <sup>st</sup> July 2010	Central University, University of Hyderabad, Hyderabad
12	One day Workshop on “ <b>Climate change Adaptation &amp; Mitigation</b> ” at Dept. of Chemical Engg, JNTUA CE, Anantapur	30 <sup>th</sup> October 2010	Organized by EPTRI (Environment Protection, Training & Research Institute), sponsored by APPCB, Kurnool
13	5 day intensive program on “ <b>Effective Teaching Methodologies</b> ”	27 <sup>th</sup> April to 1 <sup>st</sup> May 2009	Conducted by Mission-10X at INTELL Engineering college, Anantapur
14	Attended 5 day short term course on “ <b>Photo-electrochemistry and Photocatalysis</b> ”	15 <sup>th</sup> Dec to 19 <sup>th</sup> 2012	National Center for Catalysis Research (NCCR) and IIT Madras
15	One day Faculty development program (FDP) on “ <b>AGILE METHODOLOGIES</b> ”	25 <sup>th</sup> Feb 2015	JNTUA College of Engineering, Anantapuramu, AP
16	Two weeks Faculty development program (FDP) on “ <b>ENTERPRENEURSHIP</b> ”	6 <sup>th</sup> July to 18 <sup>th</sup> July 2015	JNTUA College of Engineering, Anantapuramu, AP
17	One day Work shop on “ <b>Awareness on IT/ITES Job Roles &amp; Big Data Analytics</b> ”	20 <sup>th</sup> Aug 2015	JNTUA College of Engineering, Anantapuramu, AP
18	One day Work shop on “ <b>Cyber Security</b> ”	8 <sup>th</sup> October 2015	JNTUA College of Engineering, Anantapuramu, AP
19	Refresher Course (RC) on “ <b>Gender Studies</b> ”	3 <sup>rd</sup> Feb to 23 <sup>rd</sup> Feb 2016	Maulana Azad National Urdu University, Hyderabad
20	One day didactical program on “ <b>Crafting Powerful Questions</b> ”	16 <sup>th</sup> July 2016	JNTUA College of Engineering, Anantapuramu, AP
21	One Week “ <b>NSS Program Officers Training</b> ” at University Training and Orientation center, Andhra University	6 <sup>th</sup> Feb to 12 <sup>th</sup> Feb 2017	Andhra University, Visakhapatnam
22	Three day work shop on “ <b>Awareness and Career Opportunities in Big Data Analytics</b> ” organized by Dept. of CSE in collaboration with TCS, Chennai	20 <sup>th</sup> Feb to 22 <sup>th</sup> Feb 2017	JNTUA College of Engineering, Anantapuramu, AP

23	One day work shop on “ <b>21<sup>st</sup> Century Teaching Strategies</b> ” organized by Directorate of Faculty Development Center, JNTUA, Anantapuramu	16 <sup>th</sup> September 2017	JNTUA College of Engineering, Anantapuramu, AP
24	Two day National Work Shop on ” <b>Advanced Technologies for Biomolecule Separations</b> ”	16 <sup>th</sup> – 17 <sup>th</sup> February 2018	Andhra University, Visakhapatnam
25	9 <sup>th</sup> Refresher Course on “ <b>Material Science and Measurement of Properties</b> ”	15-30 March 2018	Indian Academy of Science, Jalahalli, Bangalore
26	Two day Faculty Development Program (FDP) on “ <b>Data Science</b> ”	3-4 April 2018	JNTUA College of Engineering, Anantapuramu, AP
27	One Week Faculty Development Program (FDP) on “ <b>Reinforcing Professional Communication Skills for Teaching Faculty</b> ”	11-15 June, 2018	JNTUA College of Engineering, Anantapuramu, AP
28	One week short term course on “ <b>Nanomaterials and Smart Devices</b> ”	17-22 September 2018	IIT Guwahati, Assam
29	Two Day Workshop on “ <b>Pedagogical Skills for Outcome based Education</b> ”	16-17 November 2018	JNTUA College of Engineering, Anantapuramu, AP
30	One Week Short Term Course on “ <b>Heterogeneous Catalysis for Chemical Engineers</b> ”	10-14 December 2018	IIT Kharagpur, West Bengal
31	One day Regional Training Program on Plagiarism Detection Software (PDS-URKUND)	27 <sup>th</sup> August 2019	Cochin University of Science & Technology (CUSAT), Kochin
32	One day Industrial visit to <b>National Institute of Fashion Technology (NIFT)</b> , Coimbatore	30 <sup>th</sup> September 2019	National Institute of Fashion Technology (NIFT)-Atal Incubation Center, Coimbatore
33	Three day workshop on <b>Examination Reforms –Train the trainers</b>	20-22 January 2020	KLE Technological University, Hubballi, Karnataka
34	One day Workshop on <b>The BodhiTree and SAFE Tools</b> for Effective Online Teaching: A Hands-On Workshop	21 June 2020	IIT Bombay
35	Two week online Faculty Development Programme on “ <b>Advanced Concepts for Developing MOOCs</b> ”	2-17 July 2020	Ramanujan College, University of Delhi under MHRD-sponsored (PMMMNMTT)



36	One day <b>DST &amp; ACS Workshop</b> Virtual Event	July 28, 2020	ACS Publishers
37	Global Webinar on the “ <b>Impact of COVID19 on the Development of Rural Economy – Challenges and Opportunities</b> ”	July 27, 2020	Lead India Foundation (USA) in association with JNTUA Ananthapuramu.
38	One day workshop on “ <b>Engineering interventions to combat Covid-19 pandemic</b> ”	18 July 2020	JNTUA College of Engineering, Anantapuramu, AP
39	One Week FDP on “ <b>Emerging Technologies and Changing Scenario on Material Research</b> ”	27 July to 1 <sup>st</sup> Aug 2020	Shanti Ram Engineering College, Nandyal
40	Online Webinar on “Covid-19 and its socio economic impact”	6 <sup>th</sup> July 2020	IIT Dhanbad in collaboration with ACS International Student Chapter
41	AICTE Sponsored Two week Online Short Term Training Program on “ <b>Sustainable Design of Chemical Process Plants by Using Aspen Plus and Aspen HYSYS Simulating Tools</b> ”	03 <sup>rd</sup> August to 14 <sup>th</sup> August 2020	VIT, Chennai
42	Global Webinar on the “ <b>Transforming youth into responsible citizens and engage them in developing the</b>	August 15, 2020	Lead India Foundation (USA) in association with Malla Reddy Institute of
43	One Week Online National Faculty Development Program on “ <b>Unlockdown 3.0: A Period of Reorienting the Teaching &amp; Learning</b> ”	17 to 23 August 2020	GITAM, Bengaluru
44	E-Conference on <b>Importance of Computational Biology in Dairy and Veterinary Industry</b>	24th August, 2020	Centre of Excellence in Life Sciences
45	One Day Workshop on 'DWSIM-Beginner'	29 August 2020	IIT Bombay
46	IconSWM-India-Philippines Connect Webinar <b>Resource Circulation &amp; Waste Management under Pandemic</b>	10 <sup>th</sup> September 2020	International Society of Waste Management, Air and Water
47	International Webinar on <b>Advance Materials in Science and Technology-2020</b>	11 <sup>th</sup> September 2020	Nirma University, Ahmedabad, INDIA

48	<b>One Day Workshop on “Jmol Application”</b>	19 September 2020	IIT Bombay
49	<b>Four Day Online Faculty Development Program on “Challenges and Opportunities of Energy and Sensor Applications”</b>	23 - 26 September 2020	JNTUA CEA, Anantapuramu
50	<b>AICTE Sponsored Six Days Online Short Term Training Program (STTP) on “TECHNICAL WRITING &amp; RESEARCH METHODOLOGY”</b>	November 30 – December 05, 2020	CBIT, Proddutur, Kadapa, AP
51	<b>One Week AICTE sponsored STTP on “Development of Chemical Engineering Thermodynamics Laboratory for Undergraduates”</b>	14-19 December 2020	School of Engineering & Technology, GIET University Gunupur-765022
52	One Week AICTE sponsored FDP on <b>"THERMODYNAMICS &amp; ITS APPLICATIONS"</b>	20-25 January 2021	JNTUA College of Engineering, Anantapur
53	Two Week AICTE Sponsored Faculty Development Program on <b>“Catalysis and Reaction Engineering”</b>	18-30 January 2021	Laxmi Narayana Institute of Technology, Nagpur
54	Seminar on Environmental Restoration and Circular Economy	5 June 2021	International Society of Waste Management Air and Water (ISWMAW), INDIA
55	Seminar on Environmental Restoration and Circular Economy	12 June 2021	International Society of Waste Management Air and Water (ISWMAW), INDIA
56	Recent Trends in Chemical and allied Industries	21- 25 June 2021	ATAL online FDP
57	One week FDP on <b>“Novel Applications of Chemical Engineering”</b>	15-19 July 2021	MVGR College of Engineering (A), Vizianagaram, Andhra Pradesh, India.
58	Novel applications of waste technology systems for sustainable future	2- 6 August 2021	ATAL online FDP
59	Five Day International Faculty Development Program on <b>"Sustainable Nanotechnologies"</b>	11-15 <sup>th</sup> October 2022	GMR IT and NIT Warangal

60	Microsoft Azure AI fundamentals	12 November 2022	Microsoft online exam
61	Microsoft Azure fundamentals	26 November 2022	Microsoft online exam
62	Microsoft Azure Data undamentals	30 November 2022	Microsoft online exam

- **Memberships of Professional Bodies**

- Fellow, IEI (Applied) 3<sup>rd</sup> Dec 2022 (Pending)

- Senior Member, IEEE (Membership No: **93967344**) from the month of April 2021
  - Associate Fellow, AP Akademi of Sciences, Amaravati, Vijayawada Since Nov 2016
  - Life Member - Indian Institute of Chemical Engineers (IChE)-**LM 32962**
  - Life Member- Institution of Engineers India (IEI)-**M-153252-3**
  - Life Member- The Indian Society for Technical Education (ISTM)-**LM-107072**
  - Life Active Member-The Society for Advancement of Electrochemical Sciences and Technology (SAEST)-**LF-720**
  - Life Member-Indian Society for Electro Analytical Chemistry (ISEAC)- **LM-248**
  - Member-Asia-Pacific Chemical, Biological& Environmental Engineering Society (APCBEEES)-No:202070
  - Member-International Association of Engineers (IAENG)- **174406**
  - Member-IAENG Society of Chemical Engineering- (**174406**)
  - Member- International Safety Quality Environment Management Association (**application is pending**)

- **Research Interests:**

- Nanotechnology, Solar Energy capture, Electrochemistry, Material Science, Environmental Protection Strategies/Methodologies, Modeling and Simulation, Optimization Techniques, Numerical Methods, and Chemical Reaction Engineering,

- **Courses taught:**

- ❖ **B. Tech**

- Inorganic Chemical Technology, Organic Chemical Technology, Energy Engineering, Mechanical Unit Operations, Process Modeling and Simulation, Optimization of Chemical

Processes, Petroleum and Petrochemical Technology, Process Dynamics & Control, Material Science for Chemical Engineers, C Programming and Data Structures.

❖ **M. Tech**

- Advanced Optimization Techniques, Applied Numerical Methods, Advanced Transport Phenomena, Carbon Nanotube and applications, Physics and Chemistry of Materials, Environmental legislations & Policies

❖ **Pre-PhD**

- Computational Methods for Mechanical Engineering, Safety & Risk Analysis in Chemical Industries, and Nanotechnology

• **Merits and Scholarships:**

1. University Topper in M. Tech Examinations
2. Stood Class 2<sup>nd</sup> and **University 8<sup>th</sup> rank** in B. Tech University Examinations
3. Recipient of State Merit Scholarship during 10<sup>th</sup> for being the topper at school level
4. Class Third in Intermediate, Sri Krishna College (Boys), Board of Intermediate Education, AP

• **Computer Proficiency**

Languages : C, PASCAL, C++, Fortran

Operating Systems : Windows, Linux

Software Packages : MATLAB, ASPEN Plus, EZ Solve, DW-SIM, Python, JMol

• **References:**

<b>Prof. Raj Ganesh S Pala</b> Associate Professor Dept. of Chemical Engineering Indian Institute of Technology Kanpur-208016 e-mail: <a href="mailto:rpala@iitk.ac.in">rpala@iitk.ac.in</a> Ph.No: 09918216306	<b>Prof. Sri Siva Kumar</b> Associate Professor Dept. of Chemical Engineering Indian Institute of Technology Kanpur-208016 e-mail: <a href="mailto:srisiva@iitk.ac.in">srisiva@iitk.ac.in</a> Ph.No: 09452048636	<b>Prof. S.V. Satyanarayana</b> Professor of Chemical Engineering Director, R&D JNT University Anantapur Andhra Pradesh-515002 e-mail: <a href="mailto:svsatya7@gmail.com">svsatya7@gmail.com</a> Ph. No: 09849509167
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**.Personal Particulars**

**Father's Name** : Late B. Narasinga Rao

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JNTUA College of Engineering  
JNT University Anantapur  
Anantapuramu-515002 (AP)

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: [dileepbh.chemengg@jntua.ac.in](mailto:dileepbh.chemengg@jntua.ac.in)

**Date of Birth** : 28<sup>th</sup> August 1980

**Marital Status** : Married

**Languages Known** : English, Hindi, Telugu and Oriya

**(Dilip Kumar Behara)**