

## Curriculum Vitae

### Dr. Chatla Naga Babu

*Born on 25.05.1987 in India, Andhra Pradesh, Amalapuram.*

Marital status: Married, Caste: General (Kapu)

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### Teaching /Research Experience: 7 years (Excluding years spent in Ph.D)

S. No	Name of the Institution	Designation	Duration
1.	Department of Chemistry II, Ruhr Universität Bochum, Germany.	Post-doctoral fellow	2 years (2016 Oct.- 2018 Sept.)
2.	Indian Institute of Technology Hyderabad, India, T.S.	Post-doctoral Researcher	1 year (2018 Sept.- 2019 Sept.)
3.	Adikavi Nannaya University Rajamahendravaram, A.P.	Assistant Prof. (Guest Faculty)	2021-March
4.	LAMP Degree college, Mummidivaram, A.P.	Faculty	2.6 years (2009 June.- 2011 Dec.)
5.	LAMP Degree & Pg college, Mummidivaram, A.P.	Assistant Prof.	1.5 years (2019 Sept- 2021 Feb.)

## **Academic career/Education**

2021(Mar.): Guest Faculty, Department of Chemistry, Adikavi Nannaya University, Rajahmundry, E.G.Dt, A.P, India.

2019(Oct.)- 2021(Feb): Assistant Professor, Department of Basic Sciences and Humanities, Lamp Degree & PG College, Mummidivaram, E.G.Dt, A.P, India.

2018(Sept.)- 2019(Sept.): Post-Doctoral Guest Researcher with Prof. Dr. Ganesan Prabu Sankar, Department of chemistry, IIT Hyderabad, India.

2016-2018: Postdoc with Prof. Dr. Viktoria Däschlein- Gessner, Department of Chemistry II, Ruhr Universität Bochum, Germany.

2016 (August): Ph.D., Department of Chemistry, IIT Hyderabad, India, (CGPA 9.40). Topic: “*Metal-Imidazole, Metal-Imidazoline and Post-Modified Metal-Imidazolium Aggregates for C-C Bond Formation Reactions*”.

2009 (June).-2011 (Dec): Faculty, LAMP Degree college, Mummidivaram, A.P

2009: M.Sc. (Chemistry): Andhra University-India, (CGPA 8.76).

2007: B.Sc. (Chemistry): Andhra University-India.

## **Awards/Honors**

2021: Qualified Andhra pradesh state eligibility test

2017: Excellence in research award from IIT Hyderabad India.

2016: The best poster award from CRSI “Emerging Trends in Chemistry”, in CRSI-MKU, Madurai, Tamilnadu, India, February 18-20.

2016: Guest researcher under prof. Anjana Devi at Ruhr University of Bochum, Germany, through DST-DAAD, Indo-German exchange program.

2016: Excellence in research award from IIT Hyderabad India.

2015: The best poster award from 17<sup>th</sup> Chemical Research Society of India (CRSI) CRSI in National Symposium in Chemistry (NSC-17), CSIR-NCL, Pune, February 06-08.

2015: Excellence in research award from IIT Hyderabad India.

2014: Scientific visitor to Japan through JENESYS<sup>2.0</sup> Science and Technology.

2014: Senior research fellow at IIT Hyderabad through Council of scientific and industrial research-University grants commission.

2011: Junior research fellow at IIT Hyderabad through Council of scientific and industrial research-University grants commission.

2010: Qualified Council of scientific and industrial research- National eligibility test-Lectureship.

### **Publications**

- [1] **Chatla Naga Babu**, Katam Srinivas and Ganesan Prabusankar, Facile Access to Zinc and Cadmium Selones: Highly Active Catalysts for Barbier Reactions in Aqueous Media, *Dalton Transactions*, **2016**, 45, 6456 – 6465.
- [2] **Chatla Naga Babu**, Paladugu Suresh, Katam Srinivas, Arruri Sathyanarayana and Ganesan Prabusankar, Catalytically Active Lead (II)-Azolium Coordination Assemblies with Diversified Lead(II) Coordination Geometries, *Dalton Transactions*, **2016**, **45**, 8164 - 8173.
- [3] Paladugu Suresh, **Chatla Naga Babu**, Natarajan Sampath and Ganesan Prabusankar, Photoluminescent Calcium azolium carboxylates with diversified calcium coordination geometry and thermal stability, *Dalton Transactions*, **2015**, 44, 7338-7346.
- [4] Katam Srinivas, **Chatla Naga Babu** and Ganesan Prabusankar, Linear Cu(I) Chalcogenones: Synthesis and Application in Borylation of Unsymmetrical Alkynes, *Dalton Transactions*, **2015**, 44, 15636-15644.
- [5] Paladugu Suresh, Soumya Radhakrishnan, **Chatla Naga Babu**, Arruri Sathyanarayana, Natarajan Sampath and Ganesan Prabusankar, Luminescent

- Imidazolium Carboxylate Supported Aggregate and Infinite Coordination Networks of Copper and Zinc. *Dalton Transactions*, **2013**, 42, 10838-10846.
- [6] Katam Srinivas, Arruri Sathyanarayana, **Chatla Naga Babu** and Ganesan Prabusankar, Bismuth(III)dichalcogenones as Highly Active Catalysts in Multiple C-C Bond Formation Reactions, *Dalton Transactions*, **2016**, **45**, 5196-5209.
- [7] Katam Srinivas, Paladugu Suresh, **Chatla Naga Babu**, Arruri Sathyanarayana and Ganesan Prabusankar, Heavier chalcogenone complexes of bismuth(III)trihalides: Potential catalysts for acylative cleavage of cyclic ethers, *RSC Advances*, **2015**, 5, 15579-15590.
- [8] Paladugu Suresh, **Chatla Naga Babu** and Ganesan Prabusankar, A Rare Binuclear Macrocyclic Planar 20, 26 and 34 Membered Zinc-Organic Rings, *Polyhedron*, **2015**, 93, 84-90.
- [9] Paladugu Suresh, **Chatla Naga Babu**, Ganesan Prabusankar, Semi rigid imidazolium carboxylate controlled structural topologies in zwitterionic coordination polymers, *Polyhedron*, **2015**, 89, 322-329.
- [10] Ganesan Prabusankar, Arruri Sathyanarayana, Paladugu Suresh, **Chatla Naga Babu**, Katam Srinivas and Bhanu Prakasa Rao Metla, N-Heterocyclic Carbene Supported Heavier Group 14 Elements: Recent Progress and Challenges, *Coordination Chemistry Review*, **2014**, 269, 96-133.
- [11] **Chatla Naga Babu**, Paladugu Suresh, Arruri Sathyanarayana, Prasenjit Das and Ganesan Prabusankar, Crystal Structure and Solid-State Properties of Discrete Hexa Cationic Trinuclear Zinc Triazole Cluster, *Journal of Chemical Sciences*, **2015**, 127, 1369-1373.
- [12] Katam Srinivas, **Chatla Naga Babu** and Ganesan Prabusankar, Thermal, Optical and Structural Properties of Disulfide and Diselenide Salts with Weakly Associated Anions, *Journal of Molecular Structure*, **2015**, 1086, 201-206.

- [13] **Chatla Naga Babu**, Arruri Sathyanarayana, Shaikh M. Mobin, Ganesan Prabusankar, Structurally characterized zwitterionic chiral zinc imidazolium [4,4] grid, *Inorganic Chemistry Communications*, **2013**, 37, 222-224.
- [14] **Chatla Naga Babu**, Paladugu Suresh, Prasenjit Das, Arruri Sathyanarayana, Ranjith Ramadurai, Natarajan Sampath and Ganesan Prabusankar Synthesis, Crystal Structure and Spectral Properties of Copper(II) Monomer Decorated Copper(II) Coordination Polymer, *Journal of Molecular Structure*, **2014**, 1062, 141-146.
- [15] **Chatla Naga Babu**, Paladugu Suresh, Natarajan Sampath, Ganesan Prabusankar, Cadmium coordination polymers based on flexible bis(imidazole) ligands: A rare example for doublet of doublet cadmium polyhedron arrangements, *Journal of Molecular Structure*, **2014**, 1075, 147-153.
- [16] **Chatla Naga Babu**, and Ganesan Prabusankar, Silver(I) and copper(II)-imidazolium carboxylates: Efficient catalysts in Ullmann coupling reactions, *Journal of Chemical Sciences*, **2017**, 129(5), 553-559.
- [17] Ganesan Prabusankar, Arruri Sathyanarayana, Gembali Raju, and **Chatla Naga babu**, Pd(II)-Bis (N-Heterocyclic Carbene) Complexes: Methanol as Hydrogen Source for Catalytic Semi-reduction of Alkyne Under Mild Condition, *Asian Journal of Organic Chemistry*, *Asian J. Org. Chem.* **2017**, 6, 1451–1459.
- [18] Handelmann jens, Babu chatla naga, Gessner viktorija, Schwarz Christopher, Scherpf Thorsten, kroll alexander, Towards the rational design of ylide substituted phosphines for Gold-catalysis: from inactive to ppm-level catalysis, DOI: [10.1039/D1SC00105A](https://doi.org/10.1039/D1SC00105A) (Edge Article) *Chem. Sci.*, 2021, Advance Article.

## Conferences and workshops

### International Conferences

1. Unprecedented Cyclic Zinc Dimer and Polynuclear Cadmium Coordination Polymers based on Imidazole Ligands, Suresh Paladugu, Naga Babu Chatla, Prabu Sankar Ganesan, **41<sup>st</sup> International Conference on Coordination Chemistry**, Singapore. July 21-25, 2014.
2. Synthesis, Characterization and Catalytic applications of Lead-Azolinium Coordination Polymers, Chatla Naga Babu, Ganesan Prabusankar, **13<sup>th</sup> Eurasia Conference on Chemical Sciences**, IISc Bangalore, India. December 14-18, 2014.
3. Catalytically Active Lead(II)-Azolium Coordination Assemblies Through Post-Activation Route, Ganesan Prabusankar, Chatla Naga Babu, Paladugu Suresh, Katam Srinivas, Arruri Satyanarayana, Natarajan Sampath, **5<sup>th</sup> International Symposium On Functionalization and Applications of Soft/Hard Materials**, Epoch Ritsumei 21, Biwako-Kusatsu Campus, Ritsumeikan University, Japan. January 21-24, 2016.

### National Conferences

1. The First Chiral Zwitterionic Imidazolium Spacer Tethered Zinc-Organic Framework [ZOF], Chatla Naga Babu, Arruri Sathyanarayana, Paladugu Suresh, Ganesan Prabusankar, **15<sup>th</sup> Chemical Research Society of India (CRSI) CRSI National Symposium in Chemistry (NSC-15)**, Banaras Hindu University, Varanasi- 221 005, India. February 1–3, 2013.
2. Discrete Cadmium(II)-Organoselenones and their Application in Catalysis, Chatla Naga Babu, Ganesan Prabusankar, **17<sup>th</sup> Chemical Research Society of India (CRSI) CRSI National Symposium in Chemistry (NSC-17)**, CSIR-NCL, Pune, February 06-08, 2015.

3. Discrete Zinc(II)-Organoselenones and their Application in Catalysis, Chatla Naga Babu, Ganesan Prabusankar, **10<sup>th</sup> Mid-Year CRSI National Symposium in Chemistry**, July 23-25, 2015, CSIR-NIT Trichy, Tamilnadu, India.
4. Imidazolium Carboxylate Based  $[C-H]^{\delta+}$  Functionalized Discrete and Polymeric Coordination Assemblies: Synthesis and Catalytic applications, **15<sup>th</sup> Annual Dr K V Rao Scientific society**, 23<sup>rd</sup> May 2015, Hyderabad.
5. **IITH-Japan** Academic Fair, Indian Institute of Technology Hyderabad, 4<sup>th</sup> November, 2015.
6. **The American Chemical Society (ACS)** on Campus, IIT Hyderabad 29<sup>th</sup> Jan-2016.
7. Efficient Homo-Coupling Reactions of Halobenzene's Mediated Active Silver(II) and Copper(II)-Azolium Coordination Assemblies, Chatla Naga Babu, Ganesan Prabusankar, **Emerging Trends in Chemistry**, February 18-20, 2016, CSIR-MKU, Madurai, Tamilnadu, India.
8. Metal-Azoline and Post-Modified Metal-Azolinium Aggregates for C-C Bond Formation Reactions, **16<sup>th</sup> Annual Dr K V Rao Scientific society**, 11<sup>th</sup> June 2016, Hyderabad.
9. A Rare Tetrameric Triphenylsilanol Trapped by Piperazine Matrices Through O-H...O and O-H...N Hydrogen Bonds, **Emerging Trends in Chemistry**, February 18-20, 2016, CSIR-MKU, Madurai, Tamilnadu, India.
10. Quality management in higher education, **Internal Quality Assurance Cell (IQAC)**, National seminar on "Strategies For Strengthening Internal Quality Assurance Mechanism In Colleges" January 22<sup>nd</sup> and 23<sup>rd</sup>, 2011.
11. TEQIP workshop on "**Energy Conversion and Storage (ECS-2016)**" during May 9-14, 2016, IITH.

12. Participated in the National Level e-quiz on 'Outcome Based Education' dated 27-6-2020.  
This event is organized by the department of Humanities and Sciences, Vidya Jyothi Institute of Technology, Hyderabad to create awareness on OBE.
13. Participating National Level One Week Online Faculty Development Programme on RECENT ADVANCES AND APPROACHES IN CHEMISTRY, CHEMICAL BIOLOGY AND DRUG DISCOVERY during 11th to 17th June 2020 conducted by Department of Chemistry, Adikavi Nannaya University, Rajamahendravaram.
14. Participated in the National Webinar on "Environment and Sustainable Development (An understanding of Sustainable Development Goals and its relevance for India)" held on 24th June, 2021 in association with CENTER FOR ENVIRONMENTAL EDUCATION AND ECOLOGICAL DEVELOPMENT (CEEED), India, WORLD ENVIRONMENT ORGANIZATION (WEO) & PRAKRUTHI - THE ENVIRONMENTAL CLUB OF Lakireddy Bali Reddy College of Engineering, Mylavaram.
15. Participated in the 4-Day Online FDP on "Advances in Energy Materials for Storage Systems" organized by Chemistry Division of Department of Basic Science and Humanities, GMR Institute of Technology, Rajam during 23rd - 26th June, 2020.
16. Participated in one day international faculty development programme on ACADEMIC PUBLICATION STRATEGY- PLANNING AND EXECUTION organized by department of management studies, Adikavi nannaya university, MSN campus, Kakinada on 10<sup>th</sup> June 2020.



## Research interests

- Designing and Synthesis of organic ligands
- Synthesis of Materials
- Synthesis of metal-organic assemblies
- Characterization of metal-organic assemblies
- Crystal structure analysis of metal-organic assemblies
- Comparison and further developments of metal-organic assemblies
- Single-crystal to single-crystal transformations
- Chemical sensing
- Magnetic susceptibility and physical properties.
- Applications of metal-organic assemblies (luminescent, molecular magnetism and catalysis)
- To work on novel ideas and new techniques.

## Research experience

- **Synthesis (organic ligands and metal-organic assemblies):**

General synthetic reactions, Schlenk line techniques, layering methods, sonication, microwave synthesis, autoclaves, hydro thermal synthesis (Parr reactor), glove box, TLC, Colum chromatography.

- **Instrumentation:**

FT-IR, Raman, CHN-analyzer, single-crystal X-ray diffraction techniques , powder X-ray diffraction techniques , NMR, ESR, TGA, DTA, DSC, UV-vis absorption, fluorescence emission spectroscopy, cyclic voltmeter, GC and MS spectroscopies.

- **Software's:**

Chemdraw ultra, CCDC, scifinder, reaxys, mendeley, orgin, mestrec-C, olex, wingx, diamond, mercury, ortep, topos, Gaussian (basics).

## **Additional experience and information**

- Lab maintenances
- In-charges for instruments: Single-crystal XRD, FT-IR and UV-vis spectroscopy
- Project writing skills
- Manuscript writing skills
- Organized events (Teacher's day, college annual days and science fair).

## **Computer skills**

Microsoft PowerPoint, Microsoft Word, Microsoft Excel, Corel Draw, Adobe Photoshop, Adobe Illustrator, C, C++, Windows XP, 7, and 8, Unix, Linux, Web page designing.

## **Extracurricular Activities:**

1. Visited JAPAN in JENESYS<sup>2.0</sup> Science and Technology 11<sup>th</sup> Batch, From May 20 to 27, 2014.
2. Participated in the 50<sup>th</sup> Inter IIT Sports Meet held at IIT Bombay in the Weightlifting event.
3. Participated Mobilized Donors for Blood Donation/Donated Blood in Voluntary Blood Donation Camp at IIT Hyderabad on 15/8/2014.
4. Participated in Web Casting in the General Election-2014 for HOP/APLA, Sangareddy Constituency, Medak District from IIT Hyderabad.

## Contact details

Dr. Chatla Naga Babu

S/O CH V N Krishna Bhagavan

D. Ravulapalem

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Allavaram Mandal

East Godavari, Andhra Pradesh-533217.

## References

<p>1. Prof. Dr. Prabu Sankar Ganesan</p> <p>Professor Department of Chemistry IIT-Hyderabad Sangareddy - 502285 Telangana, India</p> <p>E.mail: prabu@iith.ac.in Phone: +91 40 23 01 62 56</p>	<p>2. Dr. Ch. Subrahmanyam</p> <p>Professor Department of Chemistry IIT-Hyderabad Sangareddy - 502285 Telangana, India</p> <p>E.mail: csubbu@iith.ac.in Phone: + 91 40 23016050</p>	<p>3. Prof. G. Satyanarayana Professor &amp; Head of the Department Department of Chemistry IIT-Hyderabad Sangareddy - 502285 Telangana, India E.mail: head@chy.iith.ac.in. Phone: +91 (40) 2301 6054</p>
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