Name of Faculty Dr. N. Mahender Reddy Designation Assistant Professor Nature of Job/Appointment Regular 24 - 06 - 2019 Date of Joining E-mail nmahenderreddy\_chm@cbit.ac.in **Education Qualifications** Name of the Degree Ph. D Doctor of Philosophy (Chemistry) PG M. Sc. (Chemistry) UG B. Sc. (with Botany, Zoology, Chemistry) **Work Experience** Teaching 8 Years Research 05 years Industry 08 Years Others Area of Specialization Catalysis, Inorganic and Organic chemistry Professional Memberships Responsibilities held at Institution Level Mentor for Induction program to the 1st Year Students. 1 Responsibilities held at Department Class In-charge/Teacher Level Member- Disciplinary committee Research Guidance Senior research fellowship award from CSIR in 2002 Post-doctoral research fellowship form University Paul Awards Received Sabatier in 2003. Courses Handled at Under Graduate / **UG-Chemistry** Post Graduate Level. National Journals - Nil International Journals - 04 No. of Papers Published National Conference - Nil International Conference - 02 **Projects Carried out** 

No. of Books/Chapter Published with details

Patents

**Technology Transfer** 

Invited Speaker

Kurapati, S.K., Mahendar Reddy, N., Sujithra, R., Kola, R., Ramesh, G.V. and Saritha, D. (2023). Nanomaterials and Nanostructures in Additive Manufacturing: Properties, Applications, and Technological Challenges. In Nanotechnology-Based Additive Manufacturing (eds K. Deshmukh, S.K.K. Pasha and K.K. Sadasivuni). https://doi.org/10.1002/9783527835478.ch3.

Class

Awarded

First

**Pass** 

- 2. Reddy, N.M., Saritha, D., Dandu, N.K., Chandaluri, C.G. and Ramesh, G.V. (2022). Recent Advances of Biomass-Derived Porous Carbon Materials in Catalytic Conversion of Organic Compounds. In Biomass-Derived Carbon Materials (eds A. Pandikumar, P. Rameshkumar and P. Veerakumar).
- https://doi.org/10.1002/9783527832903.ch13 D. Saritha, N. Mahender Reddy, Gubbala V. Ramesh, Ptand Pd- based intermetallic anode catalysts for direct ethanol fuel cell (DEFC): An overview, Materials Today:

- Proceedings, Volume 64, Part 1, 2022, Pages 357-362, DOI: https://doi.org/10.1016/j.matpr.2022.04.705.
- N. Mahender Reddy, Gubbla V. Ramesh, D. Saritha, Contemporary advancement on the alloy-based anodes for Sodium-ion batteries, Materials Today: Proceedings, Volume 64, Part 1, 2022, Pages 290-294, https://doi.org/10.1016/j.matpr.2022.04.531.
- Kiran Kumar Tadi, N. Mahender Reddy, Ch. G. Chandaluri, Gowri Priya Sakala, Gubbala V. Ramesh, Functional Polymer Nanocomposites for Wastewater Treatment. Book Title: Functionalized Biopolymer Nanocomposites for the Degradation of Textile Dyes. Springer Series in Materials Science, 2022, vol 323. Springer, Cham, pp 175–200, ISBN978-3-030-94994-5, DOI: https://doi.org/10.1007/978-3-030-94995-2 6.
- Naveen K. Dandu, Ch. G. Chandaluri, Kola Ramesh, D. Saritha,\* N. Mahender Reddy,\* Gubbala V. Ramesh\*, Carbon nanomaterials: application as sensors for diagnostics. Book Title: Advanced Nanomaterials for Point of Care Diagnosis and Therapy, 2022, Pages 211-248. Elsevier, DOI: https://doi.org/10.1016/B978-0-323-85725-3.00015-5.
- Book Title: 2D Functional Nanomaterials: Synthesis, Characterization, and Applications, Chapter Title: 2D Nanomaterials for Photocatalysis and hot electrocatalysis. Authors: Gubbala V. Ramesh, \* N. Mahendar Reddy, Muvva D. Prasad, D. Saritha, Kola Ramesh. Wiley-VCH, Weinheim, Chapter 22, pp 383-411, 2021, ISBN: 9783527823949, 3527823948.
- 8. Book Title: Functional Materials Processing for Switchable Device Modulation, Chapter Title: Recent advances in functional materials: Bioelectronics-integrated biosensor applications
  - Authors: Gubbala V. Ramesh,\* Ch. G. Chandaluri, \* Kiran Kumar Tadi, Naveen K. Dandu, and N. Mahender Reddy. Elsevier Ltd, Chapter 12, pp 221-239, 2021, ISBN: 9780128242339, 9780128239728
- 9. Book Title: Proceedings of Fourth International Conference on Inventive Material Science Applications. Advances in Sustainability Science and Technology.
  - Chapter Title: Ordered Pt3M (M= Early d- block Metals) Intermetallic Nanocrystals: Synthesis and Electrocatalysis Authors: D. Saritha, N. Mahendar Reddy\*, Gubbala V. Ramesh\*, Springer-Accepted, pp 585-594, 2021, https://doi.org/10.1007/978-981-16-4321-7\_48, ISBN: 978-981-16-4320-0, 978-981-16-4321-7.
- Book Title: Advances in Sustainability Science and Technology, Chapter Title: Modern progression in anode materials for lithium-ion batteries: Review, Authors: Gubbala V. Ramesh, N. Mahendar Reddy, D. Saritha\* Springer-Accepted, pp 595-603, 2021, https://doi.org/10.1007/978-981-16-4321-7\_49, ISBN: 978-981-16-4320-0, 978-981-16-4321-7.
- 1. FDP on "GREEN CHEMISTRY FOR SUSTAINABLE DEVELOPMENT" SRM INSTITUTE OF SCIENCE AND TECHNOLOGY, from 16-05-22 to 21-05-22
- FDP on "Personality Development" NITTTR, Chandigarh from 28-02-22 to 04-03-22
- FDP on "Analytical Techniques for Material Characterization" NITTTR, Chandigarh, from 07-03-22 to 11-03-22
- FDP on "Recent Trends on Smart Materials and Their Applications" Vardhaman College of Engineering from 07-02-22 to 11-02-22
- FDP on "Role of Chemistry in Advanced Engineering Materials (RCAEM-2021)" VASAVI COLLEGE OF ENGINEERING (A) from 25-10-21 to 29-10-21

Details of Short-Term Training Programs / Faculty Development Programs /Seminars / Workshops. Other Trainings (Attended /or organized).

- FDP on "Applied Chemistry to Design Smart Materials for Device Applications" Geethanjali College of Engineering and Technology, from 20-10-21 to 24-10-21
- 7. FDP on "Inculcating Universal Human Values in Technical Education" All India Council for Technical Education (AICTE), from 8-11-21 to 12-11-21
- Participated in the online AICTE Recognized one week FDP on "Multifunctional Nanomaterials and Characterization" Organized by NITTTR, Chandigarh, during 21-06-2021 to 25-06-2021.
- Participated in the online AICTE Recognized one week FDP on "Quantum and Energy Materials: Potential and Applications" Organized by NITTTR, Chandigarh, during 14-06-2021 to 18-06-2021.
- Participated in the online AICTE Recognized one week FDP on "Nanotechnology: Development and Challenges" Organized by NITTTR, Chandigarh, during 17-05-2021 to 21-05-2021.
- Participated in One-week Faculty Development Programme on Research Paper Writting" Organized by K.G. Reddy College of Engineering Technology, Moinabad, Hyderabad, during 10/05/2021 to 15/05/2021.
- Participated in the online AICTE Recognized one week FDP on "Essential Chemistry for Engineers" Organized by NITTTR, Chandigarh, during 03-05-2021 to 07-05-2021.
- 13. Participated in the online AICTE Recognized one week FDP on "Accreditation and Outcome Based Curriculum Design" Organized by NITTTR, Chandigarh, during 08-03-2021 to 12-03-2021.
- 14. Participated in One week online Faculty Development Program on "Student Induction and Universal Human Values" Organized by Department of Physics, Chaitanya Bharathi Institute of Technology (A), Hyderabad-500075, during 26/08/2020 to 30/08/2020.
- 15. Participated in One week online Faculty Development Program on "Role of materials science in engineering: Applications Perspective" Organized by Department of Physics, Mahatma Gandhi Institute of Technology, Hyderabad-500075, during 03/08/2020 to 07/08/2020.
- A One Week Faculty <u>Development Program on "Advanced Materials for Energy Harvesting</u>, Conversion and Storage", at MLRIT, Hyderabad, during 19-06-2020 to 23-06-2020.
- 17. A One Week Faculty Development Programme on "Waste Management", at NITTR, Chandigarh, during 08-06-2020 to 12-06-2020
- A One Week Faculty Development Program on "Materials: Recent Trends & Engineering Applications", at GRIET, Hyderabad, during 02-06-2020 to 07-06-2020
- A One Week Faculty Development Program on "Nanomaterials and Devices", at NITTR, Chandigarh during 25-05-2020 to 29-05-2020
- A One Week Faculty Development Program on "Outcome based education and NBA accreditation Process (UG)", at CBIT, Hyderabad, during 28-05-2020 to 01-06-2020
- 21. A Two-Week course on "Digital Transformation in Teaching Learning Process" at IIT, Bombay, during 14-02-2020 to 06-03-2020 (TEQIP Online certification).
- 22. Attended a One Day Workshop on "Recent Trends in Materials and Its Applications in Engineering" organized by department of Physics, Chaitanya Bharathi Institute of Technology (A), Hyderabad, November 20th, 2019.
- 23. A one-day seminar on "Physics and its Applications in Engineering" organized by department of Physics, Chaitanya Bharathi Institute of Technology, Hyderabad, March 13<sup>th</sup>, 2019
- 24. A Faculty Orientation Workshop for "Enabling student's induction in technical institutions" organized by AICTE-South central regional office, Hyderabad at JNTU-Hyderabad, during 27-06-2017 to 01-07-2017



- A One-day Workshop on "Performance Measures in Academic & Research Aspects" conducted by IQAC, CBIT, Hyderabad on 20-06-2017.
- A one-week Faculty Development Program on "Meeting the challenges of teaching in modern engineering education" conducted by ITC, CBIT, Hyderabad, during 12-06-2017 to 17-06-2017.

## Details of Journal Publications/ Conferences (National and International) from the year 2017

- International / National Conferences from the year 2017
- Dr.N. Mahender Reddy, (2021), Presented a paper titled "Quantum Dots in Point-of-Care Testing Devices for Disease Diagnosis" at "(ICMPC-2021)", organized by NITTTR, Chandigarh on 6th to 9th October.
- Dr.N. Mahendar Reddy (2020), Presented a paper titled "Silica Immobilized palladium Phosphine Complex as A Catalys3 for Sonogashira Coupling Reactions" at International e-Conference on Materials Processing & Characterization (ICMP&C-2020) Organized by Department of Physics, Chaitanya Bharathi Institute of Technology (A), Hyderabad-500075, during 18/09/2020 to 19/09/2020.

