

Name of Faculty

Dr. N. Mahender Reddy



Designation

Assistant Professor

Nature of Job/Appointment

Regular

Date of Joining

24 - 06 - 2019

E-mail

nmahenderreddy_chm@cbit.ac.in

Education Qualifications

Name of the Degree

Class

Ph. D

Doctor of Philosophy (Chemistry)

Awarded

PG

M. Sc. (Chemistry)

First

UG

B. Sc. (with Botany, Zoology, Chemistry)

Pass

Work Experience

Teaching

8 Years

Research

05 years

Industry

08 Years

Others

Area of Specialization

Catalysis, Inorganic and Organic chemistry

Professional Memberships

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Responsibilities held at Institution Level

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Responsibilities held at Department Level

1. Mentor for Induction program to the 1st Year Students.
2. Class In-charge/Teacher
3. Member- Disciplinary committee

Research Guidance

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Awards Received

1. Senior research fellowship award from CSIR in 2002
2. Post-doctoral research fellowship form University Paul Sabatier in 2003.

Courses Handled at Under Graduate / Post Graduate Level.

UG-Chemistry

No. of Papers Published

National Journals – Nil

International Journals – 04

National Conference – Nil

International Conference – 02

Projects Carried out

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Patents

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Technology Transfer

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Invited Speaker

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No. of Books/Chapter Published with details

1. N. Mahender Reddy, Gubbala V. Ramesh, Shravan Kumar Reddy, D. Saritha (2024) Functionalized magnetic nanosystems for medical imaging, *Functionalized Magnetic Nanosystems for Diagnostic Tools and Devices: Current and Emerging Research*, ISBN 978-0-443-19012-4 <https://doi.org/10.1016/B978-0-443-19012-4.00022-9>
2. 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>.
3. 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>
4. D. Saritha, N. Mahender Reddy, Gubbala V. Ramesh, Pt- and 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>.

5. 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>.
6. 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.
7. 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>.
8. 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.
9. 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
10. 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.
11. 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.

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

1. FDP on "GREEN CHEMISTRY FOR SUSTAINABLE DEVELOPMENT" SRM INSTITUTE OF SCIENCE AND TECHNOLOGY, from 16-05-22 to 21-05-22
2. FDP on "Personality Development" NITTTR, Chandigarh from 28-02-22 to 04-03-22
3. FDP on "Analytical Techniques for Material Characterization" NITTTR, Chandigarh, from 07-03-22 to 11-03-22
4. FDP on "Recent Trends on Smart Materials and Their Applications" Vardhaman College of Engineering from 07-02-22 to 11-02-22
5. FDP on "Role of Chemistry in Advanced Engineering Materials (RCAEM-2021)" VASAVI COLLEGE OF ENGINEERING (A) from 25-10-21 to 29-10-21
6. 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

8. 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.
9. 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.
10. 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.
11. Participated in One-week Faculty Development Programme on Research Paper Writing" Organized by K.G. Reddy College of Engineering Technology, Moinabad, Hyderabad, during 10/05/2021 to 15/05/2021.
12. 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.
16. A One Week Faculty Development Program on "Advanced Materials for Energy Harvesting, 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
18. A One Week Faculty Development Program on "Materials: Recent Trends & Engineering Applications", at GRIET, Hyderabad, during 02-06-2020 to 07-06-2020
19. A One Week Faculty Development Program on "Nanomaterials and Devices", at NITTR, Chandigarh during 25-05-2020 to 29-05-2020
20. 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 13th, 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
25. A One-day Workshop on "Performance Measures in Academic & Research Aspects" conducted by IQAC, CBIT, Hyderabad on 20-06-2017.
26. 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

1. 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.

2. Dr.N. Mahendar Reddy (2020), Presented a paper titled "Silica Immobilized palladium Phosphine Complex as A Catalyst 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.