

Name of Faculty Dr. Gubbala Venkata Ramesh  
 Designation Associate Professor  
 Nature of Job/Appointment Regular  
 Date of Joining 01 – 11 – 2022 (Associate Professor)  
 20 – 07 – 2019 (Assistant Professor)  
 E-mail venkataramesh\_chm@cbit.ac.in



Education Qualifications	Name of the Degree	Class
Ph. D	Doctor of Philosophy (University of Hyderabad)	Awarded
PG	M.Sc.	First
UG	B. Sc.	Distinction

#### Work Experience

Teaching	4 Years
Research	18 years
Industry	2.5 years
Others	

Area of Specialization Materials Chemistry, Nanotechnology

Professional Memberships American Chemical Society (ACS) Community Membership Number: 32287021.

Responsibilities held at Institution Level

1. Working as a member of Institute Industry Cell (25-02-2020 to now)
2. Working as a member of Institute Innovation Cell (2020-2021)
3. Co-convener-CSD committee-Sudhee-2023
4. Co-convener-CSD committee-Shruthi-2023

Responsibilities held at Department Level

1. Working as RD Coordinator at CBIT from 6-12-2019 to till now.
2. Working as Departmental Research Committee member at CBIT from 8-4-2021 to till date
3. MATLAB coordinator
4. Mentor for Induction program to the 1st Year Students at CBIT
5. Class In-charge/Teacher at CBIT
6. Member- Disciplinary committee at CBIT

Research Guidance

Awards Received

1. BEST RESEARCH AWARD (For the Contribution and Honourable Achievement in Innovative Research), International Research Awards on New Science Inventions NESIN 2020 Awards (ScienceFather is a trademark of Scifax company (Reg. No. 130116), Approved and Registered by Ministry of Corporate Affairs (MCA), Govt. of India.)
2. Junior Research Fellowship Award (JRF) conducted by Joint CSIR-UGC National Eligibility Test (NET) in June 2004. Shortlisted for SPM test (top 20% in India).
3. Qualified 'Graduate Aptitude Test in Engineering (GATE)' in 2004, conducted by Indian Institute of Technology, Delhi.
4. Qualified Council of Scientific and Industrial Research (CSIR), Senior Research Fellowship (July. 2007).
5. Received 2nd Runner-up trophy for the group competitions at the Asia Nano Camp (ANC-2010), Institute of Materials Research and Engineering (IMRI), Singapore.

Courses Handled at Under Graduate / Post Graduate Level.

Chemistry

No. of Papers Published

National Journals – Nil

International Journals – 26

National Conference – 02

International Conference – 03

Projects Carried out

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Patents

**5 (International)**

Technology Transfer

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Invited Speaker

No. of Books/Chapter Published with details

1. 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>
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>
3. Book Title: Adapting 2D Nanomaterials for Advanced Applications.  
Chapter Title: 2D Layered Structure of Bismuth Oxyhalides for Advanced Applications.  
Authors: Muvva D. Prasad, Gubbala V. Ramesh, and Sudip K. Batabyal \*  
ACS Symposium Series, Vol. 1353, Chapter 12, pp 295-315, 2020. ISBN13: 9780841298927, eISBN: 9780841298910
4. Book Title: 2D Functional Nanomaterials: Synthesis, Characterization, and Applications  
Chapter Title: 2D Nanomaterials for Photocatalysis and Photoelectrocatalysis.  
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
5. Naveen K. Dandu, Ch. G. Chandaluri, Kola Ramesh, D. Saritha, N. Mahender Reddy, Gubbala V. Ramesh, Chapter 11 - Carbon nanomaterials: Application as sensors for diagnostics, Editor(s): Sushma Dave, Jayashankar Das, Sougata Ghosh, Advanced Nanomaterials for Point of Care Diagnosis and Therapy, Elsevier, 2022, Pages 211-248, ISBN 9780323857253, <https://doi.org/10.1016/B978-0-323-85725-3.00015-5>.
6. Tadi, K.K., Reddy, N.M., Chandaluri, C.G., Sakala, G.P., Ramesh, G.V. (2022). Functionalized Biopolymer Nanocomposites for the Degradation of Textile Dyes. In: Hato, M.J., Sinha Ray, S. (eds) Functional Polymer Nanocomposites for Wastewater Treatment. Springer Series in Materials Science, vol 323. Springer, Cham. [https://doi.org/10.1007/978-3-030-94995-2\\_6](https://doi.org/10.1007/978-3-030-94995-2_6)
7. Gubbala V. Ramesh, Ch. G. Chandaluri, Kiran Kumar Tadi, Naveen K. Dandu, N. Mahender Reddy, 12 - Recent advances in functional materials: Bioelectronics-integrated biosensor applications, Editor(s): Kaushik Pal, Sabu Thomas, In Woodhead Publishing Series in Electronic and Optical Materials, Functional Materials Processing for Switchable Device Modulation, Woodhead Publishing, 2022, Pages 221-239, ISBN 9780128239728, <https://doi.org/10.1016/B978-0-12-823972-8.00002-2>.
8. Ramesh, G.V., Mahendar Reddy, N., Saritha, D. (2022). Modern Progression in Anode Materials for Lithium-Ion Batteries: Review. In: Bindhu, V., R. S. Tavares, J.M., Ţălu, Ş. (eds) Proceedings of Fourth International Conference on Inventive Material Science Applications. Advances in Sustainability Science and Technology. Springer, Singapore. [https://doi.org/10.1007/978-981-16-4321-7\\_49](https://doi.org/10.1007/978-981-16-4321-7_49)
9. Saritha, D., Reddy, N.M., Ramesh, G.V. (2022). Ordered Pt3M (M = Early d-Block Metals) Intermetallic Nanocrystals: Synthesis and Electrocatalysis. In: Bindhu, V., R. S. Tavares, J.M., Ţălu, Ş. (eds) Proceedings of Fourth International Conference on Inventive Material Science Applications. Advances in Sustainability Science and

Technology. Springer, Singapore.  
[https://doi.org/10.1007/978-981-16-4321-7\\_48](https://doi.org/10.1007/978-981-16-4321-7_48)

#### **National and International Conferences**

1. G. V. Ramesh presented a research paper entitled “NbPt<sub>3</sub> Intermetallic Nanoparticles: Highly Stable and CO Tolerant Electrocatalyst for Fuel Oxidation” at Recent Trends In Advanced Materials And Characterization – 2020 (RTAMC - 2020) Organized by VSM COLLEGE (A), Ramachandrapuram, East Godavari District, Andhra Pradesh, India, during January 29-30, 2020.
2. G. V. Ramesh presented a research paper entitled “Unexplored Intermetallic Nanoparticle Catalyst Towards Low-Temperature Energy Extraction From Ethanol” at International Conference on Multifunctional Materials (ICMM-2019) Organized by Geethanjali College of Engineering and Technology, Hyderabad-501301, India, during 19/12/2019 to 21/12/2019.
3. G. V. Ramesh, 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 20<sup>th</sup>, 2019.
4. G. V. Ramesh presented a research paper entitled “Unexplored Intermetallic Nanoparticle Catalyst Toward Low-Temperature Energy Extraction From Ethanol” at Research Day, Organized by Chaitanya Bharathi Institute of Technology, Hyderabad, August 23<sup>rd</sup>, 2019.

#### **Faculty Development Programs attended**

1. One week online faculty development programme on “Applied Chemistry to Design Smart Materials for Device Applications” from 20<sup>th</sup> -24<sup>th</sup>, September 2021 organized by Department of Freshman Engineering, Geethanjali College of Engineering and Technology, Medchal, Telangana.
2. Two Day Online National Level Faculty Development Program on “Modern Chemistry & It's Applications” on 24<sup>th</sup> & 25<sup>th</sup> Sep 2021 organized by Department Of Humanities And Sciences, Malla Reddy Institute Of Engineering And Technology, Maisammaguda, Dhulapally, Kompally, Secunderabad – 500100
3. Five-day International online faculty development programme on Emerging Trends in Nano Technology (ETNT-2021) organized by the Department of Basic Science, Vishnu Instituted of Technology(A), Bhimavaram AP in association with Physical Research Laboratory (PRL), Ahmedabad, Gujarat, from 9<sup>th</sup> – 13<sup>th</sup> November 2021.
4. One Week Online Faculty Development Program on “Role of Chemistry in Advanced Engineering Materials (RCAEM-2021)” from 25<sup>th</sup> - 29<sup>th</sup> October, 2021 organized by the Department of Chemistry, Vasavi College of Engineering (A), Hyderabad.
5. National Level 7 Days Faculty Development Programme on ‘Developing Statistical Skills for Enhancing Research’ under Rashtriya Uchchatar Shiksha Abhiyan (RUSA), jointly organized by Centre for Skill Development (CSD) and Teaching Learning Resource Centre (TLRC), from 27<sup>th</sup> January 2022 to 3<sup>rd</sup> February 2022. SYMBIOSIS COLLEGE OF ARTS & COMMERCE An Autonomous College | Under Savitribai Phule Pune University
6. One week faculty development program on “Recent Trends on Smart Materials and their Applications”, organized by Department of Physics, Humanities and Sciences, Vardhaman College of Engineering, Hyderabad, during 7<sup>th</sup> to 11<sup>th</sup>, February 2022.
7. Six Day Faculty Development Program on “GREEN CHEMISTRY FOR SUSTAINABLE DEVELOPEMENT” organized by the Department of Chemistry, SRM Institute of Science and Technology, Ramapuram campus, Chennai in association with the Association of Chemistry Teachers, Mumbai from 16<sup>th</sup> May 2022 to 21<sup>st</sup> May 2022.
8. One Week Online National Level Faculty Development Program on “Research Methodology in Humanities & Social Sciences”, from 29<sup>th</sup> May to 3<sup>rd</sup> June, 2021 organized by Department of Chemistry, Lords Institute of Engineering and Technology, Hyderabad.

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

9. AICTE Training and Learning (ATAL) Academy Online FDP on "Quantum Computing" from 2021-1-18 to 2021-1-22 at chaitanya Bharathi Institute of Technology.
10. AICTE Training and Learning (ATAL) Academy Online FDP on "Molecular Manufacturing" from 2020-10-19 to 2020-10-23 at Chaitanya Bharathi Institute of Technology.
11. One Week Online AICTE Recognized Faculty Development Program on Materials Processing and Optimization from 06/07/2020 to 10/07/2020 Organized by Mechanical Engineering Department NITTTR, Chandigarh
12. One Week Online FDP on "Engineering Physics and Materials Science", organized by Department of Physics, CBIT from 03-08-2020 to 07-08-2020.
13. One week online fresher course on "BHARATEEYA CHAITANYAM", organized by GEERVANA BHARATHI of CHAITANYA SAMSKRUTHI from 29-06-2020 to 05-07-2020.
14. One-week online Faculty Development Program on "Advanced Materials for Energy Harvesting, Conversion and Storage", during 19/06/2020 to 23/06/2020, organized by MLR Institute of Technology, Hyderabad.
15. One week online Faculty Development Program on "Materials: Recent Trends & Engineering Applications" during 02 - 07 June 2020 conducted by GOKARAJU RANGARAJU Institute of Engineering and Technology (A), Kukatpally, Hyderabad, Telangana.
16. One week online Faculty Development Program on "Outcome Based Education and NBA Accreditation Process (UG)", during 28-05-2020 to 01-06-2020 conducted by Chaitanya Bharathi Institute of Technology (A), Hyderabad.
17. One week online Faculty Development Program on "Emerging Trends in Robotics", during 26-05-2020 to 30-05-2020, conducted by Malla Reddy Engineering College, Secunderabad.
18. One week online Faculty Development Program on "Recent Advances in Material Characterization", during 23/05/2020 to 28/05/2020, organized by Mechanical Engineering Department, NITTTR, Chandigarh.

**Programs attended (Lecture, Seminar, and Technical Wrokshop):**

1. Gubbala V Ramesh from Chaitanya Bharathi Institute of Technology, Hyderabad, Telangana has participated in the International eWorkshop on Science and Technology of Emerging Materials (eSTEM – 21) – Virutal Mode Organized by the Department of Science and Humanities on 19th to 21st April 2021.
2. Gubbala V Ramesh from CBIT has participated in the virtual International Workshop on Energy Storage Technologies for E-Mobility (IWESTE-2021) organized by Department of Chemistry, SRMIST, India during March 25-27, 2021.
3. G. Venkata Ramesh has participated in a three day "International webinar on Pivotal role of Chemistry/Chemical Engineering in Present Scenario -2020" from 20th - 22nd July, 2020, organized by Department of Humanities and Sciences, VNRVJIET, Hyderabad-500090.
4. G. Venkata Ramesh of Chaitanya Bharathi Institute of Institute has participated in Webinar on STATISTICAL ANALYSIS AS AN INTERFACE IN ENGINEERING PROBLEMS organized by Department of Mathematics - CBIT on 13th July 2020.
5. G. Venkata Ramesh of Chaitanya Bharathi Institute of Technology for attending all sessions of National Webinar on Pandemic Perceptiveness in the post COVID-19 World organized by Indian Society of Analytical Scientists (ISAS), Nagpur Chapter on 4th July 2020.
6. G. Venkata Ramesh attended all sessions of National Webinar on Pandemic Perceptiveness in the post COVID-19 World organized by Indian Society of Analytical Scientists (ISAS), Nagpur Chapter on 4th July 2020.
7. G. Venkata Ramesh, has participated in webinar on "Publishing Research Articles in Scopus Indexed Journals" conducted by CBIT - School of Management Studies on 24th June, 2020.
8. G. V. Ramesh, attended a two days international level web-conference on "COVID 19: Perspective of Science and

- Challenges” organized by IQAC & department of Chemistry, Physics, Botany and Zoology, Siddharth College of Arts, Science and Commerce, Mumbai on 19-20th June 2020.
9. Gubbala V. Ramesh attended “Flexible working – Building a better chemistry culture”, on June 18th, 2020 organized by CHEMISTRY WORLD, ROYAL SOCIETY OF CHEMISTRY.
  10. Gubbala V. Ramesh attended “RSC Desktop Seminar- Hosted by RSC Chemical Biology on 11th June, 2020.
  11. Gubbala V. Ramesh attended “RSC Desktop Seminar- Hosted by RSC Chemical Biology on 4th June, 2020.
  12. G. Venkata Ramesh, has actively participated in a webinar on, “Writing a Research paper for good indexed Journals” held on 30th May, 2020 organized by Dadi Institute of Engineering & Technology, Visakhapatnam, A.P.
  13. Gubbala V Ramesh has successfully completed the following module, “How to respond to reviewers' comments” on Saturday 30 May, 2020. Presented by Paul Cumine. Researcher Academy, Elsevier.
  14. Gubbala V Ramesh has successfully completed the following module, “The journal publishing cycle” on Saturday 30 May, 2020. Presented by Jan Willem Wijnen. Researcher Academy, Elsevier.
  15. Gubbala V Ramesh has successfully completed the following module “10 reasons to get – and use – an ORCID iD” on Saturday 30 May, 2020. Presented by Alice Meadows. Researcher Academy, Elsevier.
  16. G. Venkata Ramesh, attended “Essential tips for publishing in high-impact journals” on Wednesday 30 May, 2020. Presented by: Dr. Rose Zhu, Associate Scientific Editor, Joule.
  17. Gubbala V. Ramesh attended “RSC Desktop Seminar- Hosted by RSC Chemical Biology on 28th May, 2020.
  18. G. Venkata Ramesh, attended “Tips to enhance your researchers' productivity” on May 28, 2020. Presented by: Michael Levine-Clark and Emma Bruun.
  19. Gubbala V. Ramesh has successfully completed the following module “Writing a persuasive cover letter for your manuscript” on Wednesday 27 May, 2020. Presented by Anthony Newman, Lora Heisler. Researcher Academy, Elsevier.
  20. Gubbala V. Ramesh has successfully completed the following module “10 tips for writing a truly terrible journal article on Wednesday 27 May, 2020. Presented by Bert Blocken. Researcher Academy, Elsevier.
  21. Gubbala V. Ramesh has successfully completed the following module “How to prepare your manuscript on Wednesday 27 May, 2020. Presented by Anthony Newman. Researcher Academy, Elsevier.
  22. G. Venkata Ramesh, attended “Options to provide remote access to Elsevier platforms and tools: EDT” on May 27, 2020. Presented by: Rose L’Huillier, Meshna Koren.
  23. Gubbala V. Ramesh has successfully completed the following module “Structuring your article correctly” on Wednesday 27 May, 2020. Presented by Anthony Newman. Elsevier.
  24. G. Venkata Ramesh, attended “The Researcher Journey through a Gender Lens: Findings from Elsevier’s Report” on May 27, 2020. Presented by: Holly J. Falk-Krzesinski, PhD, VP, Research Intelligence & Bamini Jayabalasingham, PhD, Sr. Analytical Product Mgr., Elsevier.
  25. G. Venkata Ramesh, participated one hour live webinar titled “DIGITAL TRANSFORMATION” by Mr. Craig Hansen, director, university of applied research & development on 12th May 2020.
  26. G. Venkata Ramesh, has Successfully attended the India First Leadership Talk webinar with Prof D. P. Singh, Chairman UGC Broadcasted on 9th May, 2020 by MHRD'S Innovation Cell.
  27. G. Venkata Ramesh, has participated in the weekly webinar series, ‘Water Challenges During and Post Covid-19,’ conducted from 7-28 May, 2020.
  28. G. Venkata Ramesh, successfully attended the India First Leadership Talk webinar broadcasted on 2nd May, 2020 by MHRD'S Innovation Cell.

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

### International Journal (Indexed in SCOPUS)

\* Corresponding author

1. 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.
2. 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.
3. R. Kodiyath, \* **G. V. Ramesh**,\* M. Manikandan, S. Ueda, T. Fujita and H. Abe\*(2020). Intermetallic Pd<sub>3</sub>X (X= Ti and Zr) nanocrystals for electro-oxidation of alcohols and formic acid in alkaline and acidic media. *Science and Technology of Advanced Materials*, 21, 573-583. (Impact Factor = **7.662**)
4. G. Yin, H. Sako, **G. V. Ramesh**, S. Ueda, A. Yamaguchi, H. Abe and M. Miyauchi (2018). A Cu–Zn nanoparticle promoter for selective carbon dioxide reduction and its application in visible-light-active Z-scheme systems using water as an electron donor. *Chem. Commun.*, 54, 3947-3950. (SCI-Impact Factor: **6.065**)
5. T. Tanabe, T. Imai, T. Tokunaga, S. Arai, Y. Yamamoto, S. Ueda, G. V. Ramesh, S. Nagao, H. Hirata, S. Matsumoto, T. Fujita and H. Abe (2017). Nanophase-separated Ni<sub>3</sub>Nb Alloy as Automobile Exhaust Catalysts. *Chem. Sci.*, 8, 3374-3378. (SCI-Impact Factor: **9.969**)
6. K. R. Deepthi, **G. V. Ramesh**, R. Kodiyath, P. S. M. Kumara, A. Dakshnamoorthy and H. Abe (2017). Mixed-valence NaSb<sub>3</sub>O<sub>7</sub> Support toward Improved Electrocatalytic Performance in Oxygen-reduction Reaction. *J. Mater. Chem. A*, 5, 1667-1671. (SCI-Impact Factor: **14.511**)
7. K. R. Deepthi, T. Imai, A. Dakshnamoorthy, **G. V. Ramesh**,\* and Hideki Abe\* (2017). Dealloyed Nanoporous Pt-Based Alloys as Active, Durable and CO Tolerant Anode Catalysts for Direct Alcohol Fuel Cells, *J. Nanosci. Nanotechnol.*, 17, 2991-2998. (Impact Factor: **1.134**)
8. M. Manikandan, **G. V. Ramesh**\*, T. Tanabe, A. Dakshnamoorthy, K. Ariga and H. Abe\* (2017). Hierarchical SnO<sub>2</sub> Nanostructure with High Energy {113} Facet as Pt Support for the Improved Oxygen Reduction, *J. Nanosci. Nanotechnol.*, 17, 2929–2936. (Impact Factor: **1.134**)

### International Patents

#### Granted Patents

1. Hideki Abe, Francis Malar Auxilia, Shinsuke Ishihara, Toyokazu Tanabe, Saravanan Govindachetty, **Gubbala Venkata Ramesh**, Toru Hara, Ya Xu, Shunichi Hishita, Katsuhiko Ariga Self-assembled single crystalline petal-like nanostructured catalyst and its preparation. (2017) JP6099238
2. Hideki Abe, Hideyuki Murakami, Fadil Nor Akmal, Saravanan Govindachetty, Toyokazu Tanabe, **Gubbala Venkata Ramesh** Oxidation resistance NiAl nanoparticles and manufacturing method thereof, oxidation resistance NiAl nanoparticle-containing bond coat layer (2017) JP6099251.

### Conferences from the year 2017

1. 4th International Conference on Inventive Material Science and Applications (ICIMA-2021) held at Coimbatore, India organized by PPG Institute of Technology during 14-15, May 2021. "Ordered Pt<sub>3</sub>M (M-Early d-block Metals) Intermetallic Nanocrystals: Synthesis and Electrocatalysis".
2. International e-Conference on Materials Processing & Characterization (ICMP&C-2020) held at CBIT, Hyderabad on 18th & 19th September, 2020. "Intermetallic Pd<sub>3</sub>X (x= Ti and Zr) Nanocrystals for Electro-Oxidation of Alcohols and Formic Acid in Alkaline and Acidic Media".
3. Recent Trends in Advanced Materials and Characterization (RTAMC-2020) organized by the Department of Physics during 29th & 30th January, 2020. NbPt<sub>3</sub> Intermetallic Nanoparticles: Highly Stable and CO Tolerant Electrocatalyst for Fuel Oxidation.
4. International Conference on Multifunctional Materials (ICMM-2019) held during 19-21 December, 2019 at Geethanjali college of engineering and Technology, keesara, Telangana. Unexplored Intermetallic Nanoparticle Catalyst Towards Low-Temperature Energy Extraction from Ethanol.
5. Research Day, Chaitanya Bharathi Institute of Technology National Unexplored Intermetallic Nanoparticle Catalyst Toward Low-Temperature Energy Extraction from Ethanol, 2019.