Name of Faculty Dr. D.Saritha Assistant Professor Designation Nature of Job/Appointment Regular Date of Joining 24 - 06 - 2019 E-mail dsaritha_chm@cbit.ac.in **Education Qualifications** Name of the Degree Doctor of Philosophy (Chemistry) IITM Ph. D PG M.Sc.(Chemistry) UG B. Sc. (MPC) **Work Experience** Teaching 9.4 Years Research 6 years Industry Others Area of Specialization Material science, Energy storage, Li-ion batteries, Electrochemistry **Professional Memberships** Member, IAENG -264439 2. Responsibilities held at Institution 20-6-2019. 3. 4. 1. 2. 3. from 20-11-2020 to till date



Class

Awarded

First

Distinction

Level

Responsibilities held at Department

- Working as Innovation-Teaching, Learning & Evaluation Committee member at CBIT from 15/7/2021 to till date.
- Worked as Additional In charge for Planning and Developing committee at KL University, Hyderabad from 22-8-2018 to
- Worked as Women protection cell committee member at KL University, Hyderabad from 6/8/2018 to 31/5/2019.
- Worked as Institution-Industry cell member at KL University, Hyderabad from 25/7/2017 to 25/7/2018.
- Working as RD Coordinator at CBIT from 6-12-2019 to till
- Working as Departmental Research Committee member at CBIT from 8-4-2021to till date.
- Working as Engineering Chemistry Lab Coordinator at CBIT
- Mentor for Induction program to the 1st Year Students at 4. CBIT.
- 5. Class In-charge/Teacher at CBIT.
- Member- Disciplinary committee at CBIT. 6.
- Worked as lab in charge for Engineering Chemistry lab at 7. KL University, Hyderabad from 2017-19.
- 8. Course coordinator for the Engineering Chemistry Theory at KL University, Hyderabad from 2017 to 2019.

Research Guidance

Awards Received

Level

- Researcher Award presented 1 Best Science bv Father, International Research Awards on New Science Inventions (NESIN 2021)
- 2. Best Paper Award presented on the occasion of international conference on Advances in Minerals, Metals, Materials, Manufacturing and Modelling (ICAM5 19) organized by NIT Warangal.
- Best Paper Award presented on the occasion of Research 3. Day organized by CBIT,2019.
- 4. Best Paper Award presented on the occasion of I st international conference on Nanoscience nanotechnology (ICNAN 16) organized by VIT University.
- Open House coordinator at shaasta-2009 where we 5. portrayed various researches being carried out in the department in Indian Institute of Technology, Madras.
- Excelled in National Entrance Test- Graduate Aptitude Test 6. in Engineering (GATE) in 2006 for admission into Ph.D program in IIT Madras (Gate score - 374).

Courses Handled at Under Graduate / Post Graduate Level.

Engineering chemistry, Engineering chemistry Lab, Environmental science

National Journals - Nil

International Journals - 19

No. of Papers Published

Projects Carried out

Patents

Technology Transfer

Invited Speaker

No. of Books/Chapter Published with details

Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops.Other Trainings (Attended and/or Organized). Effect of chemical treatment on natural fiber reinforced composites, D. Saritha, B. Dhatreyi, R. Sujithra, 2021, Application No.202141003308 A. (Published)

- Book Title: Nanotechnology Based Additive Manufacturing: Product Design, Properties and Applications, Chapter Title: Nanomaterials-Based Additive manufacturing for Mass Production of Energy Storage Systems: 3D Printed Batteries and Supercapacitors, Authors: R. Sujithra, B. Dhatreyi, D. Saritha* Wiley-VCH, Weinheim – Accepted
- Book Title: Smart Technologies for Energy, Environment & Sustainable Development, Chapter Title: A brief review of cathode materials for Li-ion batteries, Author: D. Saritha*, Springer-Accepted
- 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.
- 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.
- Successfully organized Guest Lecture on "Nano-Materials" by Dr. K Venkateshwara Rao, Professor of nanotechnology, JNTUH, Kukatpally, Hyderabad-85 on 6-2-2021.
- Successfully Organized Webinar on "2D Nanomaterial's for Advanced Electronic Applications" by Dr. Kishore Kumar Sadasivuni, Center for Advanced Materials, Managing Editor, Emergent Materials, Springer, Qatar University, Qatar on 10-4-2021.
- Successfully completed "online Patent Information Course "Organized by Turnip Innovations during Nov 2020.
- 4. Successfully completed "Improved business Performance with Google Forms" an online non-credit course authorized by Rhyme and offered through Coursera on 26-5-20.
- Successfully completed "Solar Energy Basic course" an online non-credit course authorized by State University of New York and offered through Coursera on 25-5-20.
- Successfully completed "Organic Solar cells –Theory and Practice" an online non-credit course authorized by Technical university of Denmark and offered through Coursera on 20-5-20.
- Successfully completed "Introduction to solar cells course" an online non-credit course authorized by Technical university of Denmark and offered through Coursera on 11-5-20.
- 8. A week online Faculty Development Programme on "IPR and Patent Prosecution" Organized by Institute Innovation Council, MVSREC, Hyderabad during 24/05/2021 to 28/05/2021.
- A week online Faculty Development Programme on "Research Paper Writing" Organized by KG Reddy, Hyderabad during 10/05/2021 to 15/05/2021.

- A week online Faculty Development Programme on "Research Trends in Advanced Materials Science and Engineering Technology" Organized by CBIT, Hyderabad during 8/03/2021 to 12/03/2021.
- 11. A week online ATAL Academy Faculty Development Programme
 - on "Molecular Manufacturing" Organized by CBIT, Hyderabad during 19/10/2020 to 23/10/2020.
- 12. Two week online Faculty Development Programme on "Research Methodologies and Statistical Data Analysis" Organized by CBIT, Hyderabad during 16/11/2020 to 28/11/2020.
- 13. A week online AICTE Recognized Faculty Development Programme on "Research Pedagogy and Technical Writing" Organized

by NITTTR, Chandigarh during 21/09/2020 to 25/09/2020.

- A week online AICTE Recognized Faculty Development Programme on "Intellectual Property Rights -Aspects and Prospects for Entrepreneurs" Organized by NITTTR, Chandigarh during 14/09/2020 to 18/09/2020.
- A week online AICTE Recognized Faculty Development Programme on "Advances in Manufacturing" Organized by NITTTR, Chandigarh during 07/09/2020 to 11/09/2020.
- 16. A week online AICTE Recognized Short term Training Programme on "Synthesis, Characterization and its applications of nanomaterials" Organized by JNTU, Hyderabad during 24/08/2020 to 29/08/2020.
- 17. A week online Faculty Development Programme on "Engineering Physics and Materials Science" Organized by CBIT, Hyderabad during 03/08/2020 to 07/08/2020.
- 18. A one week online faculty development program on "Material processing and optimization from Conversion and Storage" by NITTTR, Chandigarh during 6-7-20 to 10-7-20.
- 19. A one week online faculty development program on "Advanced Materials for Energy Harvesting, Conversion and Storage" organized by MLR institute of Technology, Hyderabad during 19-6-20 to 23-6-20.
- A one week online faculty development program on "Materials: Recent trends and engineering applications" by Gokaraju Rangaraju institute of Engineering and Technology, Hyderabad during 2-6-20 to 7-6-20.
- 21. A one week online faculty development program on "Outcome based education & NBA Accreditation" by Chaitanya bharathi institute of technology, Hyderabad during from 28-5-20 to 1-6-20.
- 22. A one week online AICTE Recognized faculty development program on "Recent Advances in Material Characterization" by NITTTR, Chandigarh during 23-5-2020 to 28-5-2020.
- 23. A one week online faculty development program on "nano materials for Energy harvesting and biomedical applications" by Godhavari institute of Engineering and technology, AP during 18-5-20 to 22-5-20.
- 24. A one week national online faculty development program on "ICT tools for effective teaching learning" by Swami Ramanand Teerth Marathwada university, Nanded during 11-5-2- to 16-5-20.
- 25. A one week online national faculty development program and online training on "Latex" by Sanjay Ghodawat University, Kolhapur in association with Spoken Tutorial project, IIT- Bombay during 27-4-20 to 2-5- 20.
- 26. A three day International work shop on Energy Storage Technologies for E-Mobility (IWESTE-2021) organized by SRMIST, Chennai during 25/3/21 to 27/3/21.
- A three day online Workshop on Advanced materials for Energy and Environment Applications Organized by Yogi Vemana University, Kadapa during 21/12/2020 to 23/12/2020.

- 28. 3 days of video lectures and hands work on "Effective and efficient online teaching in the age Corona, A Hands on workshop" by IIT Bombay on 16-5-20.
- A one month "IIC Online Sessions" conducted by Institution's Innovation Council (IIC) of MHRD's Innovation Cell, New Delhi, 28-4-20 to 22-5-20.
- A one day Seminar on Environmental Science organized by RSC on 21-4-21.
- 31. A one day online webinar on National Educational Policy organized by UBA Cell, MGIT on 26-9-20.
- 32. A one day online webinar on Transforming youth into responsible citizens and engage them in developing the nation organized by Lead India Foundation on 15-8-20.
- A one day online Workshop on Recent Trends in Materials and its applications in Engineering organized by department of Physics, CBIT, Hyderabad, 2019.
- 34. A one-day online Workshop on "National seminar on IOT for Real world" by CBIT, MGIT Hyderabad, 2019.
- 35. A one day online "Leadership talk with Shri Dipendra Manocha" by MHRDS Innovation cell on 27-6-20.
- A one-day online webinar on Publishing Research articles in Scopus indexed journals" by CBIT – School of Management studies on 24-6-20.
- 37. A one day online "Leadership talk" with Mr. Sridhar venkat, CEO by MHRDS Innovation cell on 20-6-20.
- A one day online "Covid 19 Awareness program" by JNTU college of Engineering, Jagtial, India on 31-5-20.
- 39. A one day online "national level quiz" by Holy Mary institute of technology and science on 30/5/20.
- A one day online webinar on "writing a research paper for good indexed journals" JNTUA, Pulivendula on 30/5/20.
- 41. A one day online webinar on "Pedagogical use of ICT in a classroom" by Stanley college of Engineering and technology for women, Hyderabad on 29-5-20.
- A one day online "Leadership talk with Mr. Mahesh babu CEO Mahindra Electric mobility Ltd" by MHRDS Innovation cell on 23-5-20
- A one day online webinar on "Graphene-The future material" by Cambridge institute of technology, Bangalore on 18-5-20.
- 44. A one day online "Matlab Skill test" by Raghu engineering college, AP on 17-5-20.
- 45. A one day online "Leadership talk" with Dr. Pramod Chaudhari, Prajindustries limited, Dr.Abhay jere, Chief innovation officer, MHRDS Innovation cell by MHRDS Innovation cell on 16-5-20.
- 46. A one day online "Awareness program on Intellectual property Rights" by Rajgad Dnyanpeeths Shri Chhatrapati Shivajiraje college of engineering on 15-5-20.
- 47. A one day online "the India First leadership talk" webinar with Prof.Singh by MHRDS Innovation cell on 9-5-20.
- 48. A one day online webinar on "Major challenges in auto component industries- post Covid 19" by Chennai institute of technology on 7-5-20.
- 49. A one day online "Faculty Awareness program on outcome based education and NBA accreditation" by Sinhgad Institute of Technology and Science, Pune held on 7-5-20
- 50. A one day online "quiz on Covid 19 Awareness program" by Unnat bharat Abhiyan, Thiagarajar College of engineering, India on 6-5-20.
- 51. A one day online "Webinar and Live tour of 3D printing, leading towards Industry 4.0" through you tube live Streaming on 3-5-20.
- 52. 3 days day "online Faculty development program" by Tilak college of science and commerce, India on 3-5-20.
- 53. A one day online "Awareness program on E-Learning opportunities' @Covid 19 Lockdown" organized by Silver Jubilee Government College (A), Ap on 2-5-20.
- 54. Presented a Paper titled "Investigation of novel anode materials for Lithium ion batteries" by CBIT, Hyderabad, during research day 2019.

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

International Journals from the year 2017

- 1. R. Sujithra, D. Saritha (2021) "Effect of fill pattern and printing speed on friction characteristics of FDM printed polylactic acid polymer", Advances in Materials and Processing Technologies, pp.1-10.
- 2. D Saritha, Dhatreyi Boyina (2021) "A concise review on 4D printing technology", Material Today: Proceedings, vol.46(1), pp. 692-695.
- 3. D Saritha* (2021) "Synthesis and electrochemical properties of Fe2WO6", Material Today: Proceedings, vol. 38(5), pp. 2512-2514.
- D. Saritha* (2021) "Recent progress on ReO3 type structures as electrodes for Li- ion batteries", Material Today: Proceedings, vol. 41(5), pp. 1130-1134.
- D. Saritha* (2020) Synthesis and Electrochemical Analysis of Li3Ti0.75(MoO4)3 Phase with Lyonsite Structure", Russian Journal of Electrochemistry, vol. 56(8), pp.626-629.
- D.Saritha (2020) "Sol gel synthesis and electrochemical properties of wolframite FeNbO4", IOP Journal of physics: conference series, vol.1495 (1), pp.012019.
- Ande Harshavardhan Reddy, Saritha Davuluri, Dhatreyi Boyina (2020) "3D Printed Lattice Structures: A Brief Review", IEEE paper, https://doi.org/10.1109/NAP51477.2020.9309680.
- 8. D.Saritha* (2020) "Insertion-Type Electrodes for Li-Ion Batteries" ISBN: 978-81-946476-9-0, pp.136-
- D.Saritha* (2019) "A concise review on the advancement of anode materials for Li-ion batteries", Material Today: Proceedings, vol.19, pp. 726-730.
- 10. D.Saritha* (2019) "Synthesis, Characterization and electrochemical analysis of FeNbO4 phase with α–PbO2 Structure", Russian journal of Electrochemistry, vol.55, pp.168-174.
- 11. D.Saritha* (2018) "Electrochemical Reaction of Lithium with SbNbO4- ReO3 Structure Type Phase", Material Today: Proceedings, vol. 5(9), pp. 17579-17584.
- 12. D.Saritha* (2018) "Synthesis and electrochemical analysis of AlVMoO7 oxide prepared via sol-gel method", Bulletian of material Science, vol. 41, pp.64
- 13. D.Saritha (2018) "Sol- Gel synthesis and electrochemical studies on Mo3Nb2O14", Adv. Sci. Lett, vol.24, pp.5593-5597.
- 14. D.Saritha* (2018) "Synthesis and electrochemical studies of ReO3 type phase Nb3O7F", Mechanics, Materials science & Engineering", vol.14(1) pp.2412.
- 15. D.Saritha* (2018) "Electrochemical study of the two structurally related compounds FeVMoO7 and CrVMoO7 synthesized by sol-gel method", Journal of Chemical Sciences, vol.130, pp. 7.
- D.Saritha* (2018) "Electrochemical analysis of tetragonal tungsten bronze type phases- W9Nb8O47 and W7Nb4O31 synthesized by Sol-Gel method", Material Science and Engineering B, vol.228, pp.218-223.

International Conferences from the year 2017

- D.Saritha, (2021), Presented a paper titled "Current Progression in anode materials for Lithium ion batteries: Review at "International e-Conference on Advances in Science and Technology (ICAST)", organized by Institute of Innovations, Tamilnadu, India.
- D.Saritha, (2021), Presented a paper titled "Current Progression on anode materials for Na ion batteries: Review at "Third International Conference on Material Science and Engineering Technology (ICMSMT)", organized by Tamilnadu, India.
- D.Saritha, (2021), Presented a paper titled "Modern Progression in anode materials for Li-ion batteries: Review at "Fourth on Inventive Material Science and Applications", organized by PPG Institute of Technology, Coimbatore, India.
- D.Saritha, (2020), Presented a paper titled "A brief review of Cathode materials for Li-ion batteries at "International e-Conference on Smart Technologies for Energy, Environment and Sustainable Development sponsored by AICTE (ICSTEESD-2020) ", organized by G.H. Raisoni college of Engineering, Nagpur, India.
- 5. D.Saritha, (2020), Presented a paper titled "Synthesis and Electrochemical properties of Fe2WO6 at "International e-Conference and exposition on Mechanical, Material and Manufacturing Technology (ICE3MT2020)", organized by CVR, Hyderabad on 9th & 10th October.
- 6. D.Saritha, (2020), Presented a paper titled "Insertion-type electrodes for Li-ion batteries at "(ICMP&C-2020)", organized by CBIT, Hyderabad on 18th & 19th September.
- D.Saritha, (2020), Presented a paper titled "Nanomaterials as electrodes for Li-ion batteries at "Indo-Korea e-Conference on Development of Advanced materials for Future Technologies (DAMFT-2202) ", organized by VIT University, Vellore on 9th & 10th July.
- 8. D.Saritha, (2020), Participated in the one-day International virtual conference Microplastics "Microplastics 20", held at VIT, Vellore
- D.Saritha, (2019), Presented a Paper titled "Sol-gel Synthesis and Electrochemical properties of wolframite FeNbO4"ICMM 19", held at Geethanjali college of Engineering ad Technology, Hyderabad.
- 10. D.Saritha, (2019), Presented a Paper titled "Synthesis and Electrochemical properties of Fe2WO6"ICAM5 19", held at NIT, Warangal.
- 11. D.Saritha, (2019), Presented a Paper titled "Recent progress on ReO3 type structures as electrode materials for Li-ion batteries "ICAM5 19", held at NIT, Warangal.
- 12. D.Saritha, (2019), Presented a Paper titled "Investigation of novel anode materials for Lithium-ion batteries during research day at CBIT, Hyderabad, 2019.
- 13. D.Saritha, (2019), Presented a Paper titled "A concise Review on the advancement of anode materials for Li-ion batteries "ICMMSE 19", held at CMR, Hyderabad.

- 14. D.Saritha, (2019), Presented a Paper titled "ReO3 type structures as electrode materials for Lithiumion batteries "ICONN 19", held at SRM, Chennai.
- 15. D.Saritha, (2018), Presented a Paper titled "Current trends in Nano materials as anodes for Li ion batteries "ICONAN 18", held at JNTU, Hyderabad, 2018.
- 16. D.Saritha, (2018), Presented a Paper titled "Lithium insertion into FeNbO4 phase with wolframite structure "ICTEMPS 18", held at GCET, Hyderabad, 2018.
- 17. D.Saritha, (2018), Presented a Paper titled "Electrochemical Reaction of Lithium with SbNbO4-ReO3 structure Type Phase "ICMPC 18", held at GRIET, Hyderabad, 2018.
- 18. D.Saritha, (2017), Presented a Paper titled "Sol-Gel Synthesis and Electrochemical studies on ReO3 structure "ICMAT 17", held at VIT University, Vellore, 2017.