RESUME

Dr. KAMPARA ROOPA KISHORE, Ph.D.

Postdoctoral Researcher
Soft Devices & Packing Laboratory
School of Mechanical Engineering
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To work in a challenging atmosphere by exhibiting my skills with utmost sincerity and dedicated smart work for the growth of your esteemed organisation. I want to attain a high level of proficiency and utilise my true potential in this competitive world.

Academic Profile

Education	Subject	Lab/Department/Institute	Board/University	Marks/Year	
Post-Doctoral Researcher	Flexible Electronics and Energy Storage Systems	Soft Devices & Packaging Lab/School of Mechanical Engineering	Sungkyunkwan University, Suwon, South Korea	Dec 2023 - Present	
Post-Doctoral Researcher	Energy storage materials	Energy Storage & Conversion Lab/Advanced Materials Engineering	Jeonbuk National University, Jeonju-Si, South Korea	Nov 2022- Dec 2023	
Post-Doctoral Researcher	Energy storage materials and sensors	CARBON Lab/Chemical Engineering	Indian Institute of Technology – Hyderabad (IIT-H), India	Jul 2021-Nov 2022	
Ph.D.	Nanomaterials based chemiresistive gas sensors	Functional Nanomaterials Lab/School of Electrical & Electronics Engineering	SASTRA Deemed University, Thanjavur, India	2014-2021	
M.Tech	RF & Microwave Engineering	Department of Electronics & Communication Engineering	GITAM Deemed University, Vizag, India	8.8 CGPA	2012-2014
B.Tech	Electronics & Communication Engineering	Kaushik College of Engineering	Jawaharlal Nehru Technological University-Kakinada	74%	2007-2011
Intermediate	Maths, Physics & Chemistry	Sri Chaitanya Junior College	Board of Intermediate Education, Andhra Pradesh	91%	2005-2007
10th Std	Maths, Physics & Chemistry	Bhashyam High School	State Board of Andhra Pradesh	83%	2005

PhD thesis title: Electrospun Metal Oxide Nanostructures for the Detection of Volatile Organic Compounds

Professional Communities

- Life member in Ion Beam Society of India: LM144

Social Media

- **ORCID iD:** https://orcid.org/my-orcid?orcid=0000-0003-4201-9132
- **Google Scholar:** https://scholar.google.com/citations?user=u2TMOjoAAAAJ&hl=en
- **LinkedIn:** https://www.linkedin.com/in/dr-kampara-roopa-kishore-73b4338b/
- **Research Gate:** https://www.researchgate.net/profile/Kampara-Kishore

Technical Skills, Competencies & Tools

NANOMATERIAL SYNTHESIS

- Nanofibers deposition through electrospinning method
- Thin-film deposition by using Spray pyrolysis, SILAR method and Sputtering techniques
- UV Lithography for nanostructure patterning
- Nanostructures functionalization: Thermal Evaporation (Au. Ag, Pt, etc.)
- Material characterization techniques: XRD, FESEM, XPS, TEM, FTIR, TGA, RAMAN
- Applications: Gas sensors, Microwave absorbers, Energy storage devices

CAD AND OTHER TOOLS

- Deep knowledge of Synopsys Sentaurus TCAD simulation tools. Experience with Silvaco Atlas.
- EMI/EMC simulators knowledge in designing compatible electromagnetic structures for gadgets and antennas

Scientific Publications in Peer Reviewed Journals

1. Shaik Ruksana, Kampara Roopa Kishore, Amit Kumar, Chandra Shekhar Sharma and Mahesh Kumar, "Metal oxide nanofibers based chemiresistive H_2S gas sensors", Coord. Chem. Rev., 471 (2022) 214752.
   DOI: 10.1016/j.ccr.2022.214752. (IF: 20.6)

2. Kiran Kumar Surthi, Kampara Roopa Kishore and Chandra Shekhar Sharma, "SU8 polymer derived high capacity and performance anode material for secondary and flexible Li-ion batteries: Experimental and first principle study", J. Chem. Eng., (2023) 147561.
   DOI: 10.1016/j.cej.2023.147561. (IF: 15.1)

3. Kampara Roopa Kishore, D. Balamurugan and B. G. Jeyaprakash, "Electrospinning based CdO nanograins for formaldehyde vapour detection by chemiresistive method", Mater Sci Semicond Process., 121 (2022) 105296. DOI: 10.1016/j.mssp.2020.105296. (IF: 4.1)

4. Kampara Roopa Kishore, T. Leela Bharani, D. Balamurugan and B. G. Jeyaprakash, "Electrospun Co_3O_4 nanograins and its methanol detection property", Appl. Nanosci., 11 (2021) 637–655.
   DOI: 10.1007/s13204-020-01623-4. (IF: 3.86)

5. Kampara Roopa Kishore, D. Balamurugan and B. G. Jeyaprakash, "CuO nanograins: Synthesis and acetone vapour detection", J. Mater. Sci.: Mater. Electron., 32 (2021) 1204–1220.
   DOI: 10.1007/s10854-020-04894-3. (IF: 2.8)

6. Kampara Roopa Kishore, T. Sonia and B. G. Jeyaprakash, "CuO/ZnO heterojunction nanograins: Methanol vapour detection", J. Electron. Mater., 50 (2021) 2482–2495.
   DOI: 10.1007/s11664-020-08694-7. (IF: 2.1)

7. Kampara Roopa Kishore, D. Balamurugan and B. G. Jeyaprakash, "Formaldehyde vapour sensing property of electrospun NiO nanograins", Front. Mater. Sci., 15 (2021) 416–430.
   DOI: 10.1007/s11706-021-0559-3. (IF: 2.765)

8. Kampara Roopa Kishore, D. Balamurugan and B. G. Jeyaprakash, "Tunneling electron transport in ZnO nanograins prepared by electrospinning method: An ethyl acetate vapour sensor by chemiresistive method", J. Porous. Mater., 29 (2022) 729-743.
   DOI: 10.1007/s10934-022-01203-7. (IF: 2.6)

9. Dan Na, Hyeonwoo Jeonga, Baeksang Yoona, Kampara Roopa Kishore, Suresh Mamidib, Cheul-Ro Leea, Jae-Kwang Kimc, and Inseok Seoa, "$Li_{1.5}Al_{0.3}Si_{0.2}Ti_{1.7}P_{2.8}O_{12}$ Inorganic Solid Electrolyte for High-Performance All-Solid-State Li-ion Batteries", Mater. Today Adv., 19 (2023) 100389.
DOI: 10.1016/j.mtadv.2023.100389 (IF: 10)

10. Dan Na, Kampara Roopa Kishore, Dohyeon Yu, Baeksang Yoon, Cheul-Ro Lee, Hyung-Kee Seo, and Inseok Seo, "Li–CO_2 batteries using conducting ceramic solid electrolyte with Ru catalyst", Mater. Today Energy., 38 (2023) 101418.
DOI:10.1016/j.mtener.2023.101418 (IF: 9.3)

11. Dan Na, Kampara Roopa Kishore, Dohyeon Yu, Baeksang Yoon, Dae Young Lee, Inseok Seo, "Exploring Li-CO2 Batteries with Electrospun PAN-Derived Carbon Nanofibers and Li1. 4Al0. 4Ti1. 6 (PO4) 3 Solid-State Electrolyte", J. Alloys Compd. , 970 (2024) 172559.
DOI: 10.1016/j.jallcom.2023.172559 (IF: 6.2)

12. Nancy Anna Anasthasiya, Kampara Roopa Kishore, P. K. Rai, B. G. Jeyaprakash, "Highly sensitive graphene oxide functionalized ZnO nanowires for ammonia vapour detection at ambient temperature", Sens. Actuators B Chem., 255 (2018), 1064-1071.
DOI: 10.1016/j.snb.2017.08.148. (IF: 8.4)

13. Nancy Anna Anasthasiya, Kampara Roopa Kishore, P. K. Rai, B. G. Jeyaprakash, "Gold functionalized ZnO nanowires as a fast response/recovery ammonia sensor", Appl. Surf. Sci., 449 (2018) 244-249.
DOI: 10.1016/j.apsusc.2017.11.072. (IF: 6.7)

14. Cherian Sony K, Kampara Roopa Kishore, Reddy, Srikanth Chandra Shekhar Sharma, "Candle Soot Embedded Electrospun Carbon Nanofibers as Flexible and Free-Standing Sulfur Host for High-Performance Lithium-Sulfur Batteries", ACS Appl. Nano Mater. , 6, 11 (2023) 15574-15587.
DOI: 10.1021/acsanm.3c02268 (IF: 5.9)

15. Suresh Mamidi, Baeksang Yoon, Dan Na, Kampara Roopa Kishore, Dae Young Lee, Cheul-Ro Lee, Inseok Seo, "Candle soot-metal-organic framework-based hierarchical electrode as high-performance anode for Li-ion batteries", J. Electroanal. Chem., 949, (2023) 117853.
DOI: 10.1016/j.jelechem.2023.117853 (IF: 4.5)

16. Arthi Gopalakrishnan, Kampara Roopa Kishore and Chandra Shekhar Sharma, "A hybrid flexible N-doped candle-soot carbon nanofibers for binder-free lithium-ion battery anode", Mater. Lett., 349 (2023) 134873.
DOI: 10.1016/j.matlet.2023.134873. (IF: 3)

17. Sri Varshini. K, Kampara Roopa Kishore, B. G. Jeyaprakash and D. Balamurugan, "Investigation of ammonia sensing characteristics of electrospun Fe_2O_3 nanograins", J. Electron., 52 (2023) 4853–4864.
DOI: 10.1007/s11664-023-10442-6. (IF: 2.1)

18. Sri Varshini. K, Kampara Roopa Kishore, B. G. Jeyaprakash and D. Balamurugan, "Heterostructured ZnO/Fe_2O_3 nanograins-based sensors for formaldehyde detection", J. Electron. Mater., 34 (2023) 1317.
DOI: 10.1007/s10854-023-10689-z. (IF: 2.8)

19. P. Balaji, Kampara Roopa Kishore, R. Pandeeswari, B. G. Jeyaprakash and D. Balamurugan, "Ammonia Analyzer for Disease Diagnosis Applications", Res. J. Pharm. Technol., 11(3), 841-846.
DOI: 10.5958/0974-360X.2018.00156.7. (Scopus)

Cumulative Impact Factor: **112.825**
Average Impact Factor: **5.93**

Awards & Achievements

- **International:** Second place in **NanoArtography 2020** international science image competition, conducted by Indiana University - Purdue University Indianapolis (IUPUI), USA – October 2020
- **National:** Council of Scientific and Industrial Research **(CSIR) Senior Research Fellow,** from the Ministry of Human Resource and Development (MHRD), Government of India, April 2017 - April 2019
- **National:** Technical education quality improvement program **(TEQIP-II) scholarship** from the Ministry of Human Resource and Development (MHRD), Government of India, March 2013 to April 2014

Employment History

- **Sungkyunkwan University,** Suwon, South Korea (**December 2023 - Present**)
  Role: Postdoctoral researcher in the Soft Devices and Packing Laboratory, School of Mechanical Engineering
  Research area:
  - Flexible Electronics (E-skin)
  - Semiconductor packaging
  - Energy Storage Devices

- **Jeonbuk National University,** Jeonju, South Korea (**November 2022 – December 2023**)
  Role: Postdoctoral researcher in the Energy Storage and Conversion Laboratory, School of Advanced Materials Engineering
  Research area:
  - Energy Storage Devices (Li-ion, Li-S and Li-CO_2 batteries)

- **Indian Institute of Technology Hyderabad (IITH),** Hyderabad, India (**July 2021 - October 2022**)
  Role: Postdoctoral researcher in the CARBON Lab, Department of Chemical Engineering
  Research area:
  - Gas Sensors (Exhaled breath sensors, Environmental monitoring sensors, E-Nose for food quality assessment)
  - Energy Storage Devices (Li-ion batteries and supercapacitors)
  - Patterned Carbon Nanofibers for high-Performance Lithium-Ion Batteries and Supercapacitors

- **SASTRA Deemed University,** Thanjavur, India (**August 2014 - April 2021**)
  Role: Full-time PhD research scholar in the Functional Nanomaterials Lab, School of Electronics and Electronics Engineering
  Research area:
  - Nanomaterials-based gas sensors (Exhaled breath and environmental monitoring sensors)

- **GITAM Deemed University,** Visakhapatnam, India (**March 2013 - April 2014**)
  Role: Teaching assistant in the Department of Electronics and Communications engineering under MHRD government of India funded TEQIP Phase-II project.

Personal Profile

- Date of Birth : 12/08/1990
- Father's Name : Sri Eswara Rao
- Sex : Male
- Marital Status : Married
- Nationality : Indian

Personal Interests

- Cricket Statistics
- Reading books
- Korean Traditional Archery
- Farming
- Coin collection (Numismatist) and Stamp collection (Philately)
- B +ve blood donor

References

1. **Dr. B. G. Jeyaprakash (Ph.D. Supervisor)**
   Associate Professor, School of Electrical and Electronics Engineering
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2. **Prof. Jong-Woong Kim (Postdoctoral Research Supervisor)**
   Associate Professor, Department of Semiconductor Convergence Engineering
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3. **Dr. Inseok Seo (Postdoctoral Research Supervisor)**
   Professor, Division of Advanced Materials Engineering,
   College of Engineering,
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4. **Dr. Chandra Shekhar Sharma (Postdoctoral Research Supervisor)**
   Professor (Dean R&D), Department of Chemical Engineering,
   Indian Institute of Technology – Hyderabad, India
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5. **Dr. V. Ramanathan (PhD Doctoral Committee Member)**
   Assistant Professor
   Department of Chemistry
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Declaration

I hereby declare that the above details are true to my knowledge.

Date : 01/December/2023 **Dr. K. R. Kishore**
Place : Suwon, South Korea

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