Name	Dr.K.K.Purushothaman M.Sc., Ph.D
Designation	Assistant Professor
Mail ID	purushoth_gri@yahoo.co.in
Nationality	Indian
Teaching Experience	15 years
Research Area	Thinfilms, Nanomaterials, Supercapacitors, Electrochromic smart windows.
PhD Guided	One
Indian Patent	Grant No:479580, Zinc Oxide/Carbon Nanocomposite Process of Preparation and Applications Thereof.
Funded Project	Principal Investigator for the major research project entitled "Development of electrochemical hybrid and pseudocapacitors based on nanostructured nickel oxide" DST – SERC-Young Scientist Scheme (3 years, 2012-2015, Rs.24 lakhs).

Google Scholar: http://scholar.google.co.in/citations?hl=en&user=Lq7sQfcAAAAJ

Papers Published in International Journals (39)

[1] Flower like cobalt-doped nickel oxide mesoporous microspheres for supercapacitor applications. K.K.Purushothaman, S.Vijayakumar**. J Mater Sci: Mater Electron** 35, 493 (2024). https://doi.org/10.1007/s10854-024-12184-5. (Impact factor: 2.8).

[2] MWCNT attached mesoporous Ag_3O_4 @NiO nanocomposite for hybrid supercapacitor applications **K.K.Purushothaman***, B Saravanakumar, S Vijayakumar, B Sethuraman, G Shanmugam, **Materials Technology**, 37(14) 2022, 3167. (Impact factor: 3.297).

[3] Fabrication of Multi-Walled Carbon Nanotubes Wrapped Mesoporous NiO Hollow Spheres for Asymmetric Supercapacitors applications K.K.Purushothaman, **Chemistry Select** 7 (19) (2022), e202200665. (Impact factor: 2.23).

[4] Sol-Gel coated WO_3 thin films based complementary electrochromic smart windows, **K.K.Purushothaman***, G. Muralidharan, S.Vijayakumar **Materials Letters**, 296 (2021) 129881. (Impact factor: 3.574).

[5] Synthesis and characterization of 3D flower like Co_3O_4 for supercapacitor application, K. Kannagi, K. K. Purushothaman, P. Suganya, and B. Sethuraman **AIP Conference Proceedings**, 2270, (2020) 110041.

[6] Flaky Structured V_2O_5: Morphology, Formation Scheme and Supercapactive Performance, B. Saravanakumar, **K.K. Purushothaman**, G.Muralidharan, **Russian Journal of Electrochemistry** 55 (2019) 97-106. (Impact factor: 1.043).

[7] V_2O_5/nitrogen enriched mesoporous carbon spheres nanocomposite as supercapacitor electrode B. Saravanakumar, **K.K. Purushothaman**, G. Muralidharan **Microporous and Mesoporous Materials** 258 (2018)1387-1811. (Impact factor: 3.615).

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[9] Design of additive free 3D floral shaped V_2O_5@ Ni foam for high performance supercapacitors **K.K.Purushothaman***, B.Saravanakumar **,** G. Muralidharan, M. Dhanashankar, **Materials Technology 32** (2017)584-590. (Impact factor: 1.820).

[10] Fabrication of two-dimensional reduced graphene oxide supported V_2O_5 networks and their application in supercapacitors B. Saravanakumar, **K.K. Purushothaman**, G. Muralidharan **Materials Chemistry and Physics** 170 (2016) 266-275 (Impact factor: 2.259).

[11] Carbon Coated Flowery V_2O_5 Nanostructure as Novel Electrode Material for High Performance Supercapacitors. B. Sethuraman, **K.K. Purushothaman***, **Electrochimica Acta** 186 (2015) 285-291(Impact factor:4.504).

[12] High performance supercapacitor based on carbon coated V_2O_5 nanorods. B.Saravanakumar **K.K. Purushothaman** , G. Muralidharan **Journal of Electroanalytical Chemistry** 758(2015)111-116 (Impact factor:2.729).

[13] Fabrication of Natural Polymer Assisted Mesoporous Co_3O_4/Carbon Composites for Supercapacitors. B. Sethuraman, **K.K. Purushothaman***, **Electrochimica Acta** 168, (2015) 50-58. (Impact factor:4.504).

[14] Ag_3O_4 Grafted NiO Nanosheets for High Performance Supercapacitors. I.Manoharababu, **K.K.Purushothaman***, G.Muralidharan (RSC) **Journal of Materials Chemistry. A** 3 (1)(2015) 420-427. (Impact factor:**8.26**).

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[16] V_2O_5/functionalized MWCNT hybrid nanocomposite:the fabrication and its enhanced supercapacitive performance. B.Saravanakumar **K.K. Purushothaman** , G. Muralidharan **RSC Advances** 4 (70)(2014), 37437-37445. (Impact factor : 3.708)

[17] Nanostructured CuO/Reduced graphene oxide composite for hybrid supercapacitors. **K.K.Purushothaman***, B.Saravanakumar, I.Manoharababu B.Sethuraman, G.Muralidharan **RSC Advances** 4(45) (2014), 23485-23491. (Impact factor : 3.708)

[18] Synthesis of mesh-like Fe_2O_3/C nanocomposite via greener route for high performance supercapacitors.B.Sethuraman, **K.K.Purushothaman***, G.Muralidharan **RSC Advances** 4 (9)(2014), 4631-4637. (Impact factor : 3.708)

[19] Nanosheet-Assembled NiO Microstructures for High-Performance Supercapacitors **K.K.Purushothaman***, I.Manohara Babu, B.Sethuraman, G.Muralidharan **ACS Applied Materials & Interfaces** 5 (21) (2013), 10767-10773. (Impact factor : 5.900)

[20] Optical,Structural and Electrochromic properties of cobalt oxide films prepared via sol-gel route. **K.K.Purushothaman***, B.Sethuraman, M.P.Anupama, M.Dhanashanar, G.Muralidharan **Materials Science in Semiconductor Processing** 16 (2013) 1410-1415. (Impact factor 1.408)

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[23] Interconnected V_2O_5 Nanoporous Network for High Performance Supercapacitors. B.Saravanakumar **K.K. Purushothaman** , G. Muralidharan **ACS Applied Materials and Interfaces** *4* (9)(2012) 4484–4490. **(**Impact factor : 5.900)

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[26] Electrochromic properties of nickel oxide and mixed Co/Ni oxide films prepared via sol-gel route. **K.K.Purushothaman**, G. Muralidharan **Journal of Non-Crystalline Solids** 358(2012)354-359. (Impact factor :1.636)

[27] Synthesising of ZnO nanopetals for supercapacitor applications. **K.K.Purushothaman**,V. Suba Priya, S. Nagamuthu, S. Vijayakumar, G. Muralidharan, **Micro &Nano Letters** 6 (2011) 668-670. (Impact factor :0.944)

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S.Vijayakumar, S.Nagamuthu, **K.K.Purushothaman**, M.Dhanashankar and G.Muralidharan **International Journal of Nanoscience** 6 (2011) 1245-1248.

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K.K.Purushothaman and G.Muralidharan **Materials Science in Semiconductor Processing**. 14 (2011) 78-83. (Impact factor : 1.408)

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K.K. Purushothaman, G. Muralidharan **Solar Energy Materials & Solar Cells 93** (2009)1195-1201. (Impact factor : 5.471)

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K.K.Purushothaman, M.Dhanashankar and G.Muralidharan, **Current Applied Physics.** 9 (2009) 67–72. (Impact factor : 1.999)

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K.K.Purushothaman, G.Muralidharan **Functional Materials Letters** 2 (2009) 143- 145. (Impact factor: 1.461)

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K.K.Purushothaman, G.Muralidharan**, Journal of Sol-Gel Science & Technology**. 46 (2008) 190- 194. (Impact factor: 1.547)

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K.K. Purushothaman, M. Dhanashankar and G. Muralidharan, **Surface Review & Letters**. 14 (2007) 1149-1156. (Impact factor: 0.357)

*Corresponding author

Papers presented in International / National level conferences / Seminars (23)

[1] Presented a paper entitled **Supercapacitor behavior of NiO and Co doped NiO mesoporous spheres** on 7th International Conference on Nanoscience and Nanotechnology (ICONN-2023) held on March 27- 29, 2023- organized by SRM IST, Chennai, India.

[2] Presented a paper entitled **Preparation And Characterization Of $CoFe_2O_4$ Nanoflakes For Supercapacitor Applications** in the International e-Symposium on Materials Development and Scale-up for Membrane Separation, Sensing, Energy and Biological Applications (MDS-MSEB)" held on Jan 24-25, 2023- organized by SRM Institute of Science and Technology, Chennai, India

[3] Presented a paper entitled **Synthesize and characterization of $ZnFe_2O_4$ nanoflakes** on International Conference on Recent Advances in Materials and Radiation Measurements held on 10-11th Feb 2022 organized by Sri Sivasubramaniya Nadar College of Engineering (Autonomous), Chennai.

[4] Presented a paper entitled **Sol-gel coated WO_3 thin films based complementary electrochromic smart windows** on 6th International Conference on Nanoscience and Nanotechnology (ICONN-2021) held on Feb 1- 3, 2021 organized by SRM IST, Chennai, India.

[5] Presented a paper entitled **Structural, Morphological and Electrochemical Properties of Nanostructured Nickel Oxide Prepared via Hydrothermal Method** on International Conference on Recent trends in Materials Science and Applications held on Jan 6, 2017 at Sri Meenakshi Govt. Arts college for Women, Madurai.

[6] Presented a paper entitled **V_2O_5 /Carbon nanostructures for energy storage applications** on International Conference on Renewable Energy and Sustainable Environment – RESE 15, held on August 10-13, 2015 at Dr. Mahalingam College of Engineering and Technology, Pollachi.

[7] Presented a paper entitled **Hydrothermal Synthesis of NiO microspheres for supercapacitor application** on International Conference on Materials and Characterization Techniques, held on March 10-12th , 2014 at VIT, Vellore, Tamilnadu.

[8] Presented a paper entitled **Supercapacitor behavior NiO Nanorods** on National Conference on Recent Advances in Surface Sciences held on Feb 14 &15,2013 at Gandhigram Rural University,Gandhigram.

[9] Presented a paper entitled **Preparation of Nickel oxide thin films for supercapacitor application** on National Symposium on Nanoscience and Nanotechnology held on Nov 29-Dec1,2012 at BHU, Kolkatta.

[10] Presented a paper entitled **Preparation of ZnO Nanoparticles for Photoluminescence Applications** on National Conference on Recent Trends in Materials Science held on November 11-12,2011 at K.S.Rangasamy College of Technology, Tiruchengode.

[11] Presented a paper entitled **Supercapacitor behavior of Nano structured Fe_2O_3 films prepared via sol-gel method** on International Conference on Advanced Materials and Its Applications held on march 4-5,2011 at Kalasalingam University,Tamilnadu, India.

[12] Presented a paper entitled **Anodic Nickel Oxide Based Smart Windows** on Advanced Materials and Its Applications held on march 4-5, 2011 at Kalasalingam University,Tamilnadu, India.566-570.

[13] Presented a paper entitled **Preparation of Fluorine doped tin oxide films using spray pyrolysis method for supercapacitor application** on Advanced Materials and Its Applications held on march 4-5, 2011 at Kalasalingam University,Tamilnadu, India.-618-622

[14] Presented a paper entitled **Pseudocapacitance behavior of tin doped Vanadium pentoxide nano films** on Advanced Materials and Its Applications held on march 4-5, 2011 at Kalasalingam University,Tamilnadu, India. 287- 290

[15] Presented a paper entitled **Improved electrochemical properties of the MoO_3 thin films using Zr as a protective layer** on Advanced Materials and Its Applications held on march 4-5, 2011 at Kalasalingam University,Tamilnadu, India.604-610

[16] Presented a paper entitled **Optical, Structural and Electrical Properties of Cobalt Doped Tin Oxide films** on International conference and workshop on new materials and devices for photovoltaic applications held on Feb 10-12, 2011 at Madurai Kamaraj University, Madurai.

[17] Presented a paper entitled **Electrical, structural and optical properties of molybdenum doped tin oxide films prepared via spray pyrolysis** method on International conference and workshop on new materials and devices for photovoltaic applications held on Feb 10-12, 2011 at Madurai kamaraj University, Madurai.

[18] Presented a paper entitled **Electrochromic Smart windows based on nanoporous WO_3 films** on National conference on Recent Advances in Electroanalytical Techniques held on February 25-26, 2010 at Gandhigram Rural Institute-Deemed University, Tamilnadu, India.

[19] Presented a paper entitled **Cerium doped Molybdenum Oxide thin films for electrochromic Windows** on National conference on Recent Advances in Electroanalytical Techniques held on February 25-26, 2010 at Gandhigram Rural Institute-Deemed University, Tamilnadu, India.

[20] Presented a paper entitled **Influence of copper on the optical, structural and electrical properties of tin oxide films** on National Conference on Nano Materials for Energy Harvesting held on December 2-4, 2009 at Thiagarajar College of Engineering, Madurai.

[21] Presented a paper entitled **Preparation and characterization of Cobalt oxide films prepared via sol-gel route** on National conference on Emerging Areas In Thin Film

Science And Technology held on February 13-14, 2009 at PSG College of Technology, Coimbathore.

[22] Presented a paper entitled **Optical, structural and electrochromic properties of Cobalt oxide films prepared via sol-gel rou**te on International conference on Smart Materials held on January 7-9, 2009 at Thiagarajar College of Engineering, Madurai.

[23] Presented a paper entitled **Effect of Fluorine content on the structural, optical and electrical properties of SnO_2 films prepared at high temperature by spray pyrolysis method** on International conference on Nanomatrials and its Applications held on February 4-6, 2007 at National Institute of Technology, Tiruchirappalli.

Book Chapters (3)

[1]. Inorganic One-Dimensional Nanomaterials for Supercapacitor Electrode Applications. KK Purushothaman, B Saravanakumar, B Sethuraman, Morphology Design Paradigms for Supercapacitors, 203-225, 2019, CRC Press, ISBN: 9780429263347.

[2]. Gel Polymer Electrolytes for Supercapacitor Applications, KK Purushothaman, B Saravanakumar, S Vadivel, N Krishna Chandar, Mohd Imran, Supercapacitor Technol.: Mater., Processes Architect, 61, 2019 Materials Research Forum LLC, ISSN: 24718890, ISBN: 9781644900499.

[3]. Supercapacitor Electrodes Utilizing Graphene-Based Ternary Composite Materials, B Saravanakumar, K.K. Purushothaman, S Vadivel, A Sakthivel, N Karthikeyan, PA Periasamy, Monoelements: Properties and Applications, 149-167, 2020, John Wiley & Sons, Inc. ISBN:9781119655251.

Awards

1. Meritorious Students Fellowship (JRF) by University Grants Commission (UGC), Govt. of India. (2009-2010)

2. GRU Research Fellowship by Gandhigram Rural University.(2007-2009)

Courses Completed

Sl. No	Details of the Professional Competence	Organizing Institute/Agency and Place	Duration and number of days
1	Orientation	Pondicherry University - Pondicherry	05-03-2020 to 25-03-2020 (21 days)
2	Refresher	Pondicherry University - Pondicherry	4-08-2021 to 17-08-2021 (14 days)
3	Refresher	UGC-MMTTC, University of Allahabad, Prayagraj	9-02-2024 to 22-02-2024(14 days)