Dr. Suman Kumar Burnwal

(Professor of Physics & HOD (Humanities & Sciences))

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Educational Qualification:

- **PhD.** Completed in the year 2013 from Dept. of Physics, Osmania University, Hyderabad, India
- **M.Sc.** Completed in the year 2003 from Dept. of Physics, Osmania University, Hyderabad, India
- **B.Sc.** Completed in the year 2000 from V.V. Degree College, Osmania University, Hyderabad, India

Teaching Experience: 13+ years

- **Professor** of Physics in **Navodaya Institute of Technology**, Raichur, Karnataka, India. from 2015
- **Associate Professor** of Physics in **Malla Reddy College of Engineering & Technology,** Secunderabad, India 2013-2015:
- **Assistant Professor** in **CVR College of Engineering,** an autonomous body affiliated to **JNTU**, Ibrahimpatan, Hyderabad, India 2009-2013:
- **Assistant Professor** in **Nalla Malla Reddy Engineering College** at Divyanagar, Hyderabad, India 2007-2009:
- **Assistant Professor** in **TKR Engineering College** at Meerpet, Hyderabad, India 2005-2007:
- **Assistant Professor** in **TRR College of Engineering** at Patancheru, Hyderabad, India 2003-2005:

RESEARCH

- **Title of Ph.D:** "Ni- doped BSCF Cathode Materials for Intermediate Temperature Solid Oxide Fuel Cells"

Research Interest:

- Development of Fuel cells/SOFC/Magnetic Materials for sensors and super capacitors.
- Development of Nan crystalline materials for various applications.

Project Guided: 02

Paper Publications/ Conference Publications:

- "Review on MIEC cathode materials for Solid Oxide Fuel Cells", Suman Kumar Burnwal, S. Bharadwaj and P. Kistaiah, "**Journal of Molecular and Engineering Materials** is accepted in the year **Sept'2016**
- "Study of Electrical and Magnetic Properties of Ni- Doped BSCF"**,** Suman Kumar Burnwal, S. Bharadwaj and P. Kistaiah, **"Advanced Science, Engineering and Medicine"**, American Scientific Publisher, 7 (2015) 213-215.
- "Thermal and Electrical Properties of $Ba_{0.5}Sr_{0.5}Co_xFe_{1-x-y}Ni_yO_{3-\delta}$ ($x=0.4$, $0\leq y\leq 0.25$) as Cathode Material for IT-SOFCs", Suman Kumar Burnwal and P. Kistaiah, **Journal of Molecular and Engineering Materials**, 2 (2014) 1450005.
- "Synthesis and Characterization of Ni doped BSCF as a cathode material for IT-SOFC", Suman Kumar Burnwal, M. Buchi Suresh and P. Kistaiah, **International Journal of Scientific Research**, 2 (September-2013) 377-379
- "Crystal Structure and Ionic Conductivity study of Ni- doped BSCF cathode materials for low temperature SOFCs" Suman Kumar Burnwal and P. Kistaiah, Bonfring **International Journal of Industrial Engineering and Management Science,** 3 (2013) 20-23
- "Synthesis and Characterization of Ni doped BSCF as a cathode material for IT-SOFC", Suman Kumar Burnwal, M. Buchi Suresh and P. Kistaiah, **National Seminar on Advanced Materials & their Applications (NSAM-2013),** held in Hyderabad, and conducted by Dept. of Physics, Osmania University from 27^{th} to 28^{th}-February-2013.
- "Investigation of Dielectric Properties of $(1-x)Ni_{0.53}Cu_{0.12}Zn_{0.35}Fe_{1.88}O_4$ ferrite + $Gd_{0.2}Co_{0.8}O_3$ for multilayer Chip Inductors"**, CVR Journal of Science & Technology**, S.Bharadwaj, Suman Kumar Burnwal, T. Ramesh and S.R.Murthy, ISSN 2277-3916, (December-2012) 71-73
- "Synthesis of Nano-Crystalline $Ba_{0.5}Sr_{0.5}Co_{1-x}Fe_{0.6}Ni_xO_{3-\delta}$ Cathodes by a Novel Sol-gel Process for Low Temperature SOFCs"**,** Proceedings of **International Conference on Innovation & Research in Technology for Sustainable Development** (ICIRT 2012), Suman Kumar Burnwal and P. Kistaiah **, ISBN 978-93-82338-21-5**© 2012 Bonfring.

- "Synthesis of Nano-Crystalline $Ba_{0.5}Sr_{0.5}Co_{1-x}Fe_{0.6}Ni_xO_{3-\delta}$ Cathodes by a Novel Sol-gel Process for Low Temperature SOFCs"**,** Suman Kumar Burnwal and P. Kistaiah International Conference on Recent Advances in Material Sciences **(RAMS-2012)**, held in Bangalore, and conducted by Karnataka State Higher Education Council from 6th to 8th-November, 2012.
- "MIEC Cathode Materials for Solid Oxide Fuel Cells"**,** Suman Kumar Burnwal and P. Kistaiah, International Symposium and Exhibition on Fuel Cell Technologies **(FUCETECH-2009)** held in Mumbai, conducted by NMRL- DRDO, from 11th to 13th-November, 2009.

Seminars/Conference Attended/Organized/Workshops: 08

- **National Seminar on Advanced Materials & their Applications (NSAM-2013),** held in Hyderabad, and conducted by Dept. of Physics, Osmania University from 27th to 28th-February-2013.
- **International Conference on Innovation & Research in Technology for Sustainable Development** (ICIRT 2012) at Raigarh, Chhattisgarh.
- International Conference on Recent Advances in Material Sciences **(RAMS-2012)**, held in Bangalore, and conducted by Karnataka State Higher Education Council from 6th to 8th-November, 2012.
- International Symposium and Exhibition on Fuel Cell Technologies **(FUCETECH-2009)** held in Mumbai, conducted by NMRL- DRDO, from 11th to 13th-November, 2009.
- Participated in a five-day workshop on **"Nanotechnology"** conducted by Dept. of Electronics, NIT, Surat during July 2009.
- Attended a National Conference on Ferroics, **NCF-06** conducted by CVR College of Engineering, Hyderabad from 30th-June to 1st-July, 2006.
- International Conference on Environmental Management organized by JNTU-Hyderabad from 27- 30th October, 2005.
- **PLANEX WORKSHOP- India's Mission to Moon** at SPL, **Vikram Sarabhai Space Centre,** Trivandrum in February- 2003

Membership in professional Bodies:

- International Society for Research & Development
- International Society for Environmental & Information Sciences