



Name in Caps: Dr.A.N.NAGASHREE
Designation: Professor
Qualification: PhD
Email-id: (official): annagashree.eee@bmsce.ac.in
Experience: 33 years
Teaching experience: 33 Years
Date of Joining this Institution (BMSCE): 28.10.1991

Research Interests: Insulation Diagnostics and High Voltages
Also interested in other research areas such as: Renewable Energy, Energy Conservation and Energy Auditing.

About Your self

I completed my B.E degree in Electrical Engineering from University Visvesvaraya College of Engineering(U.V.C.E) in the year 1990 and M.E degree in Power Electronics from B.M.S college of Engineering in year 1995. I pursued Ph.D degree in the field of Electrical Engineering and obtained the degree from VTU in 2016. I am working in department of Electrical and Electronics Engineering since year 1991. I have also filed patents in the research area of Insulation Diagnostics and High Voltages. I believe in continuous learning and self-development and try to use a creative approach to solve problems. Working individually and in team, handling multiple tasks and efficient time management are few of my strengths. I play a key role in setting up of HV and Dielectrics Research & Development lab in department of EEE.

Education:

Doctoral Research: “High Frequency Performance of the New Electrical Insulation System Using Natural Vegetable Seed Oils”- VTU
Masters: In Power Electronics – Bangalore University
Bachelors: Electrical Engineering – Bangalore University

Personal web site/page if any then mention the Webpage link

Total number of patents – 6

Patent Details

The research work has resulted in 6 patents

- i. Indian patent – 2 filed
 - a) A Process To Extract Liquid Dielectric Coolant From The Sesame Seed Oil-4250/CHE/2015
 - b) A Process To Extract Liquid Dielectric Coolant From The Rice Bran Oil – 4251/CHE/2015
- ii. US Patent – 1 Granted in June 2018 and 1 filed
 - a) A Process To Extract Liquid Dielectric Coolant From The Sesame Seed Oil – US20170133119A1- Patent Granted – 9th April 2019.
 - b) US10256007 B2A Process To Extract Liquid Dielectric Coolant From The Rice Bran Oil – US20170130113A1-Granted in June 2018.
- iii Canada patent – 2 filed
 - c) A Process To Extract Liquid Dielectric Coolant From The Sesame Seed Oil-CA2938797A1
 - d) A Process To Extract Liquid Dielectric Coolant From The Rice Bran Oil-CA2938792A1.

Selected Publications

i)“Analytical comparison of Dual Active Bridge converter with Push Pull Converter for power transfer efficiency”, Global conference in advancement inTechnology, 18th to 20th Oct, 2019.

- ii) “ Investigations on the Dielectric Properties of Vegetable Seed Oils and Solid Insulations as Composite Insulation at High Frequencies”, Proc. 2019 Annual Meeting of the Electrostatics Society of America-ESA 2019, Rochester, New York, 10th June to 12th June, 2019.
- iii) “ A Novel Vegetable Oil Based Dielectric Coolant & Investigations on its Performance under High Frequencies”, Proc. 2019 Annual Meeting of the Electrostatics Society of America ESA 2019, Rochester, New York, 10th June to 12th June 2019.
- iv) “ Digitally Controlled 50W, 500kHz Synchronous Buck Converter”, 4th international conference for Convergence in Technology Paper. SDMIT, Ujire Mangalore, 27th October 2018.
- v) “ A Msp430 Controller Based Class-D Audio Power Amplifier With DLDPC PWM Switching”, International Conference on Smart Grids, Power and Advanced Control Engineering (ICSPACE2017), 17th to 19th Aug 2017.
- vi) “*High Frequency Dielectric Properties of Insulation Systems with New Natural Vegetable Seed Oil* “International, Elsevier, Materials Today: Proceedings 5 (2018), pp 2685–2695.
- vii) “*Breakdown Behaviour of New Bio-degradable Dielectric Coolants under 50Hz AC for Different Electrode Configurations*” International, Elsevier Journal, Materials Today: Proceedings 5 (2018), pp3099–3108.
- viii) “*Uninterruptable Power Supply Design Using Float and Boost Technology*”, International Journal of Engineering and Technology (IRJET), Volume 3, 7th july,2016 (S.No 483), online publication.
- ix) “*Investigations On Breakdown Voltages In Chemically Treated Natural Esters When Used As Liquid Dielectric*”, in the International Journal of Engineering Research & Technology (IJERT) ,Vol. 2 Issue 3, March – 2013 , ISSN: 2278-0181.
- x) “*Effect of Antioxidants on the Performance of Vegetable Oils as Liquid Dielectrics*” in International Journal of Electrical Engineering & Technology (IJEET) under International Association for Engineering and Management Education March-April 2013) Volume 4, Issue 2, , pp. 393-404, ISSN: 0976 – 6545.
- xi) “*A Msp430 Controller Based Class-D Audio Power Amplifier With DLDPC PWM Switching*”, IEEE international conference on smart

grids, power and advanced control engineering (ICSPACE-2017), Global Academy of Technology, Bengaluru, 17th to 19th Aug 2017.

xii) *“Uninterruptable Power Supply Design Using Float Cum Boost Technology”*, PEDES-IEEE International Conference On Power Electronics, Drives And Energy System, 14th to 17th Dec 2016.

xiii) *“An Alternative Environment Friendly Liquid Dielectric used in Transformers”*, International Conference on Development of Smart Cities (ICDSC-2016), 9-10 Sept 2016,

xiv) *“Natural Vegetable Oil Blends: An Eco-friendly Alternative to Silicone Fluid used in High Frequency Transformers”*, International Conference on Development of Smart Cities (ICDSC-2016),9-10 Sept 2016.

xv) *“Suitability of Natural Vegetable seed oil as Liquid Dielectric Coolant in an Insulation system”*, International Conference on Emerging Research in Electronics, Computer and Technology-(ICERECT-2015, 17th -19th Dec 2015.

xvi) *“Investigations on Dielectric Behavior of a New Eco-friendly Dielectric Coolant for Transformers”*,. International Conference on Emerging Research in Electronics, Computer and Technology-(ICERECT-2015, 17th -19th Dec 2015- *Co-Author-Best paper award*

xvii) *“Transformer less grid connected Single Phase Inverter for Power System Applications”*, International Conference on Emerging Research in Electronics, Computer and Technology-(ICERECT-2015,17th -19th Dec 2015.

xviii) *“Simulation Of Half Impulse Radiating Antenna”*, IEEE International conference on “Emerging Trends In Communication, Control, Signal Processing & Computing Applications”(IEEE-C2SPCA-2013), Oct 10th and 11th, 2013.

xix) *“Self-Resonant Reset Forward Converter with Dual-Outputs for Military Application”*, 2012 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES) at CPRI, Bengaluru, India, December16-19, 2012.

xx) *‘Investigations on the Suitability of Indigenous Natural Esters as Liquid Dielectrics’*, The 2012 IEEE 10th International Conference on Properties and Applications of Dielectric Materials (ICPADM -2012) CPRI, Bangalore, July 24 -28, 2012.

	<p>xxi)“Natural Vegetable Oils as Liquid Dielectric Coolants for Power Transformers’ International Conference on Emerging trends and challenges in transformer technology, CPRI, New Delhi 13-14 Sep 2012,pp119-125.</p>
	<p>Courses Handled/List</p> <ol style="list-style-type: none"> 1. Switchgear and Protection 2. Fundamentals of VLSI/Circuit Design using VLSI 3. Operations Research 4. Electrical Power and Energy Management Systems 5. Electrical and Electronics measurements 6. Electrical Engineering Materials 7. Renewable Energy Resources 8. High Voltage Engineering 9. Industrial Drives and Applications 10. Elements of Electrical Engineering 11. Power Semiconductor Devices 12. Holistic Approach to Electrical Safety <p>Labs Handled/List</p> <ol style="list-style-type: none"> : 1. High Voltage 2. Relay lab 3. Basic Electrical lab/ CO- Lab 4. Power Electronics 5. Analog Electronics 6. Digital Electronics 7. SSPC 8. DC, Transformer and Induction Machines
	<p>Additional Responsibilities</p> <ol style="list-style-type: none"> 1. Head of the Department from Feb2022 to Dec 2024 2. EEE Dept – Main NBA co-ordinator- 2014. Coordinator for compliance report submission till Jan 2018 3. Squad for Anti Ragging- 2019 & 2018 4. Coordinator for Stock checking in Electronics and Communication (E&C) Department- 2017 5. EEE dept main coordinator for TEQIP – April 2018- till date 6. Examination related – BOE member 7. Core committee coordinator – Phase Shift 2014,15 8. Library stock checking- coordinator 9. Graduation day – EEE dept- main coordinator- 2013,14,15 10. Placement coordinator 11. Time Table Officer 12. Theory exam coordinator
	<p>Other Details</p> <p>Equipment procured for setting up of R&D HV and Dielectrics lab:</p> <ol style="list-style-type: none"> 1. Impedance Analyser: model WK-4300 of Wayne Kerr Electronics- Dissipation factor and relative permittivity measurements at high frequencies. 2. Rancimat 892, Metrohm - oxidation stability. Measurements.

