Curriculum Vitae

Brief Profile:

Dr. N. Kumaresan was born in Tamil Nadu, India, on May 3, 1971. He received the B.E. degree from Bangalore University, Bangalore, India, in 1992, and the M.E. degree in power systems from the National Institute of Technology (then Regional Engineering College), Tiruchirappalli, India, in 1994, and the Ph.D. degree from Bharathidasan University, Tiruchirappalli, India, in 2005. Since 1999, he has been with the Department of Electrical and Electronics Engineering, National Institute of Technology, Tiruchirappalli, where he is currently a Professor.



The administrative responsibility of Dr. Kumaresan includes Dean, Indian Institute of Information Technology, Tiruchirappalli (April 2018 to August 2019), Head of the Department of Electrical Engineering during 2012-2015, apart from heading Computer Support Group during 2009-2012 and Associate Dean (Planning and Development) in 2007-2009, Professor in-charge, Central Library, NIT, Tiruchrappalli during 2019-2020. Presently he is the Dean (Student Welfare) since January 2020. He was involved in developing power converter research laboratory and hybrid electrical systems laboratory. He is also actively involved in coordinating industry based inter-disciplinary programme, namely, M.Tech. (Construction Technology and Management), fully sponsored by L&T Construction under Build India Scholarship (BIS) Programme during 2016 -2018.

Dr. Kumaresan organized two national level conferences, namely, National Power Systems Conference during 14-16 December 2018 and National Power Electronics Conference during 13-15 December 2019. He was the technical committee convener for the IEI 33rd National Convention of Electrical Engineers and National Seminar on "Hybrid AC/DC Power systems for Effective Utilization of Renewable Energy" during 24-25 November 2017 and organizing committee chair for the IEI 34th National Convention of Production Engineers and National Conference on "Emerging Technologies in Power Sector Equipment Manufacturing" during 25-26 May 2019. He was the organizing secretary of Conclave on Academic Reforms (CAR2015) and extended his support for implementing the Flexible Academic Curriculum and Flexible Mode of Delivery and Assessment at NIT, Tiruchirappalli.

Dr. Kumaresan is the principal author/co-author of over 80 journal and conference papers. He has guided 10 Ph.D. dissertations and over 100 MS/ME/M.Tech. Theses. He has been granted one Indian patent and filed one Indian patent. He has executed more than five major sponsored and consultancy projects. Dr. Kumaresan received the Career Award for Young Teachers in December 2006, instituted by the All India Council for Technical Education, Government of India. His research interests include design and development of electrical machines and power electronic controllers for renewable energy electric conversion systems. Dr. Kumaresan is a Fellow of Institution of Engineers, India, Senior Member, IEEE (USA), Member of the IET (UK) and a Life Member of the ISTE, India. Dr. Kumaresan was IEEE Student Branch Counselor at NIT, Tiruchirappalli during 2018-2019 and Chairman, IEI, Tiruchirappalli Local Center and Council member, Institution Engineers (India) during 2018 – 2021. Presently he is the member of IEEE Smart Cities Publications Editorial Board, Advisor IEEE Student Branch Counselor at NIT, Tiruchirappalli since 2020 and Executive committee member, IEI, Tiruchirappalli Local Center since 2021.

1. Name : N. KUMARESAN

2. Designation : PROFESSOR

3. Office Address : EEE, NIT, TIRUCHIRAPPALLI

4. Telephone (Direct) : 2503257 Telephone (R): : 2504257

Mobile (Optional):

6. Field(s) of Specialization : Power Systems / Renewable Energy Electric

Conversion Systems

7. Employment Profile

Job Title	Employer	From	To
	Professor	12.03.2018	Till date
National Institute of Technology (Formerly Regional Engineering College), Tiruchirappalli, Tamil Nadu, India	Associate Professor	23.04.2010	11.03.2018
	Assistant Professor	03.11.06	22.04.2010
	Lecturer / senior Lecturer	03.05.99	02.11.06
Vellore Engineering College, Vellore (now VIT University, Tamil Nadu, India)	Lecturer	18.05.98	30.04.99
City Institute of Technology, Malaysia	Lecturer	19.08.97	20.02.98
Vellore Engineering College, Vellore(now VIT University, Tamil Nadu, India)	Lecturer	14.02.95	14.08.97

8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D.	National Institute of Technology (Formerly Regional Engineering	2005		Electrical and Electronics Engg.
M.E.	College), Tiruchirappalli Tamil Nadu, India	1994	First Class	Power Systems
B.E.	Golden Valley Institute of Engineering, KGF Bangalore University, Karnataka, India	1992	First Class	Electrical Engineering

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institutio n	From	То
Dean (Students Welfare)	NIT, Tir uc hirappalli	January 2020	Till date
Professor in-charge	Central Library	July 2019	January 2020
Coordinator- Electrical stream	M.Tech. (Construction Technology and Management) under Build India Scholarship Programme of L & T constructions	April 2014	June 2018
Students' Counselor	IEEE Students Branch	May 2018	Dec. 2019
Advisor	NIT, Tiruchirappalli	January 2020	Till date
Committee Chairperson	B.Tech. I year courses	August 2016	July 2017
Head of the Department	EEE	January 2012	January 2015
Chairman, Computer Centre Committee	- Complifer Support Carolin		February 2012
Associate Dean			July 2009
Warden	Hostel	June 2003	Sep. 2007

Note: Department level committees are not mentioned above.

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	То
Dean	Indian Institute of Information	April 2018	August 2019
B.Tech. Admission in- charge	Technology, Srirangam	May 2016	August 2019
Chairman, IEI, Tiruchirappalli Local Centre and Council Member	Institution of Engineers (India)	November 2018	October 2021

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2006-2009	AICTE Career Award for Young	AICTE
	Teachers	
1995, 1996, 1998	BEST TEACHER AWARD	Vellore Engineering College,
	Each carrying a certificate and a	Vellore - 14.
	cash award of Rs. 2000/-	
1995	BEST TECHNICAL EXHIBIT	Regional Engineering College,
	AWARD IN SCIENCE	Tiruchirappalli - 15.
	EXHIBITION	

12. Fellowships

Year of Award	Name of the Fellowship	Awarding	From	То
		Organization	(Month/Year)	(Month/Year)
1993-94	GATE scholarship	AICTE	August 1993	Dec. 1994

13. Details of Academic Work

(i) Curriculum Development

Developed curriculum for the following subjects:

UG level:

Design with PIC microcontrollers Wind and solar electrical systems Networks and linear systems

PG level:

Microcontroller applications in power converters Electrical systems in wind energy

Ph.D. Level:

Wind energy electrical conversion systems

In addition to the above, I have modified / improved the content of the few courses that are already in the B.Tech. / M.Tech. Curriculum.

(ii) Courses taught at Postgraduate and Undergraduate levels

UG level:

- 1. DC machines and transformers
- 2. Control systems
- 3. Circuit theory
- 4. Networks and linear systems
- 5. Power system operation and control
- 6. Basics of electrical and electronics engineering
- 7. Branch specific course
- 8. Microprocessors and microcontrollers
- 9. Electronic circuits
- 10. Electrical and control systems

PG level:

- 1. Advanced power system analysis
- 2. Power system operation and control
- 3. Power conversion techniques
- 4. Power converters
- 5. Electrical systems for wind energy
- 6. Renewable power generation technologies
- 7. Microcontroller applications in power converters
- 8. Wind energy electric conversion systems

(iii)Projects guided at Postgraduate level

More than 100 Thesis / projects guided at the M.Tech./MS level

(iv)Other contribution(s)

- 1 Organizing secretary, Conclave on Academic reforms 2015
- 2 Member Senate sub-committee- Academic reforms

14. Details of Major R&D Projects

		Dura	ation	Status
Title of Project	Funding Agency	From	То	Ongoing/ Completed
A novel hybrid energy system for supplying isolated loads with FPGA based energy management scheme	Center for Wind Energy Technology (C-WET), Chennai	Nov 2013	May 2018	Completed
Development of micro-grid controller integrated with multiple types of renewable sources and loads	POWER GRID CORPORATION OF INDIA LIMITED	July 2013	April 2014	completed
Development of infrastructure in Power Electronics Lab	National Mission for Power Electronic Technology (NaMPET), CDAC, Trivandrum	April 2008	July 2009	Completed
Design and Testing of Electrical Generators and Associated Power Electronic Controllers for Wind and Bio-mass Driven Applications	Under Career Award for Young Teachers of AICTE	December 2006	December 2009	Completed
Solar powered Battery Charger	under Student Project Scheme	2007	2008	Completed
An Integrated Wind-Solar Electric Energy Conversion System for Isolated Rural Power Supply	Tamil Nadu State Council for Science and Technology	1999	2000	Completed

15. Number of Ph.D.s guided

Name of the PhD Scholar	Title of PhD Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award
R. Karthigaivel	Analysis, control and testing of SEIGs and semi-converters with various firing angle control schemes for battery charging applications	Supervisor	2012
K. Vijayakumar	Control strategy for WRIG system with certain power electronic converter topologies for effective utilization of wind energy	Supervisor	2013

Name of the	Title of PhD Thesis	Role(Supervisor/	Year of
PhD Scholar		Co-Supervisor)	Award
S.Senthil Kumar	Analysis and Control of Capacitor-Excited Induction Generators and Power Electronic Converters for Stand-Alone and Grid- Connected Applications	Supervisor	2013
P. Raja	Design and Development of Improvised Schemes Applicable for the Performance Enhancement of Wind Driven Induction Generators	Supervisor	2013
V. Nayanar	Investigations on the applications of power electronic converters and electrical machines for DC microgrid systems	Supervisor	2016
K. Navin Sam	Investigations on Certain Control Strategies for Stand-Alone Wind-Driven DFIGs	Supervisor	2017
K. Arthishri	Analysis and control of wind-driven 3-phase SEIGs and associated power converters feeding 1-phase utility grid	Supervisor	2019
Mahaboob Subahani	Control Strategies for Stand-Alone Operation of Induction Generator System with Certain Power Electronic Converter Topologies	Supervisor	2021
Nindra Sekhar	Design and operation of a new hybrid system employing wind-driven DFIG, solar PV panels and bio-gas driven SCIG using power electronic controllers	Supervisor	2022
Sumedha Mahajan	Control Strategies for Stand-Alone Operation of Induction Generator System With Certain Power Electronic Converter Topologies	Co-supervisor	2017

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

Date	Title of	Level of	Role (Participant/	Event Organized by	Venue
(s)	Activity	Event	Speaker/ Chairperson,		
		(International/	Paper presenter, Any		
		National/	other)		
		Local)			

Workshop attended

- 1. A outbound workshop titled "Supporting Student Learning and Well-Being Crafting the new Millennial", organized by NIT, Tiruchirappalli at Ideal River View Resort, Tanjore on 17th September 2019.
- 2. Orientation Workshop on Outcome Based Education and Accreditation for Programme Evaluators (PEVs) NBA, Organized by IITM, (Venue : Hall-II), ICSR Building) Chennai, India on 12.11.2016.

- 3. Global Education Futures (GEF) Workshop on 'Prototyping Our Futures' and 'Living in Harmony: Universities & Communities Strategies for successful Community-University Engagement', organized by FICCI Higher Education Summit held at FICCI, New Delhi, India on 09.11.2016.
- 4. One day conclave on R&D in New and Renewable Energy organised by the Ministry of New and Renewable Energy, Government of India at Vigyan Bhavan, New Delhi, India on 05.08.2014
- 5. National Workshop on Power Electronics NWPE 2013, on the theme of Energy scenario and Role of Power Electronics organised by NaMPET (National Mission on Power Electronics Technology) Phase II, an initiative of Department of Electronics and Information Technology, Ministry of Communication and Information Technology, Govt. of India & CDAC, Thiruvananthapuram, held in Hotel FORTUNE Park JP Celestial, Bangalore 560009 on 19.09.2013
- 6. Twenty Ninth National Convention on Mechanical Engineers National Seminar on "An Insight into Supercritical Technology Concept to Commissioning" organized by Institution of Engineers (India), Tiruchirapalli Local Centre, India held during September 6-7, 2013.
- 7. 2-day workshop on "Perspectives on Curriculum", organized by NIT, Tiruchirappalli under TEQIP during 9-10 May 2013.
- 8. Tutorial on "Grid Integration of Renewable Energy Sources and Electric Vehicles", delivered by Associate Prof. Udaya K. Madawala, *The University of Auckland, New Zealand and* Associate Prof. Mahinda Vilathgamuwa, *Nanyang Technological University, Singapore* during The 3rd IEEE International Conference on Sustainable Energy Technologies (ICSET'12) held in Kathmandu, Nepal on 24 27 September 2012.
- 9. 10- day ISTE Workshop on "Solar Photovoltaics: Fundamentals, Technologies and Applications", organized by ISTE-IITB, Mumbai under NME-ICT together with NCPRE supported by MHRD, during 12-22 December 2011 at NIT-T remote centre.
- 10. Workshop on "Next Generation of Power Systems", organized by IEEE ICIIS 2011, Faculty of Engineering, University of Peradeniya, Sri Lanka on 16th August 2011.
- 11. Workshop on "Large scale Integration of Wind Energy into the grid", organized by IEEE Bangalore chapter, conducted at CPRI, Bangalore during 20-21 January 2009.
- 12. Tutorial on "Blackouts / network security / energy management in the deregulated environment" delivered by *Prof. Bruce F Wollenberg, University of Minnesota, USA* during IPEC 2007 conference.
- 13. National Workshop on "TEQIP Industry Institution Interaction July 2006", organized by National Project Implementation Unit (NPIU), Govt. of India and State Project Facilitation Unit (SPFU), Govt. of Andra Pradesh, during 20-21 July 2006 at Hyderabad.
- 14. Workshop cum Discussion on "Small Hydro Power Projects" jointly organized by Alternate Hydro Energy Centre, IIT, Roorke and CEESAT, NIT, Trichy during 22-23 April 2005 at CEESAT, NIT, Trichy.

15. National workshop on "Energy Conversion in Industries", organized by The Institution of Engineers (India), Tiruchirappalli Local Centre on 22nd May 2004 at NIT, Tiruchirappalli.

Training program / Summer schools attended

Sl.No.	Title	Name of the		Dura	ation
		sponsoring agency	Organization / Place	From	То
1.	Induction Training Programme	AICTE	TTTI, Chennai	01.06.1995	22.06.1995
2.	Psychological Counselling	VEC, Vellore	Christion Counselling Centre, Vellore	04.06.1996	15.06.1996
3.	Short-Term training program on Power Quality issues and Remedial Measures	AICTE / ISTE	Calicut REC	20.12.1998	02.01.1999
4.	Winter School on Digital Protection of Power Systems	AICTE / ISTE	CIT, Coimbatore	15.11.1999	28.11.1999
5.	Short-Term training program on EMTP, MATLAB, PSPICE packages and their applications in Electrical Engineering	AICTE / ISTE	REC, Warangal	27.12.1999	08.01.2000
6.	Short-Term training courses on Neural Networks and its Engineering Applications	AICTE	IIT, Kanpur	26.06.2000	01.07.2000
7.	Regional Training Course on Simulation Models in Engineering and Technology	UNESCO	IIT, Chennai	12.03.2001	23.03.2001
8.	Developing emotionally intelligent leadership	NITT	ASCI, Hyderabad	23.07.2007	27.07.2007
9.	7 Habits of Highly Effective People	NITT / TEQIP	Franklin Covy At Munnar	02.10.2008	04.10.2008
10.	Outbound experimental learning camp for team building & effective group dynamics	NITT / TEQIP	Adventure zone,	11.02.2013	12.02.2013

Conferences attended

As a Participant

- 1. 12th FICCI Higher Education Summit 2016 Global Conference & Exhibition, Education for tomorrow: 'Learn in India-Learn for the World', Organised by FICCI, India, held at Vigyan Bhavan, New Delhi, November 10-12, 2016.
- 2. 5th International Conference on "Trends in Industrial Measurement and Automation", 4-6, January 2007, NIT, Tiruchirappalli, India.

As a Speaker

- 1. 3rd International Conference on Energy, Power and Environment (ICEPE 2020 Towards Clean Energy Technologies) organized the Department of Electrical Engineering, National Institute of Technology Meghalaya, Shillong, India during 05th-07th March 2021 (online). Participated as one of the Panel Members in the panel discussion on 07.03.2021 at 2.00 pm on the topic "Wind Energy: Technological Advancements Towards Global Development"
- 2. 8. "Recent trends in intelligent electrical power grid", keynote address in the International conference on Recent Trends in Electrical, Electronics & Control Engineering (IConRAEeCE'18), organized by the Department of Electrical and Electronics Engineering, Mepco Schlenk Engg. College, Sivakasi, during 4 & 5, May 2018 (04.05.2018)
- 3. Key note speaker in 10th International Conference on Science, Engineering and Technology (SET), organized by VIT, Vellore, during 4-5 May 2015.
- 4. Chief guest and jury in the National conference on Power Initiatives, organized by the Department of Electrical and Electronics Engineering, K. Ramakrishnan College of Engineering, Samayapuram, Tiruchirappalli 621112, on 27.02.2015.
- 5. Evaluator for the Technical session V Electrical and Power Electronics in TEQIP- II Sponsored International Conference on "Energy and Environmental Engineering" (ICEEE'14), organized by the Department of Petrochemical Technology, Anna University, Tiruchirappalli, during 6-7, November 2014.
- 6. Key note speaker in 8th International Conference on Science, Engineering and Technology (SET), organized by VIT, Vellore, during 6-8 May 2014.
- 7. Key note speaker in International Conference on "Advancements in Automation and Control (ICAAC 2014)" in Association with Journal of Applied Mechanics and Materials held on 11-04-2014, organized by Department of Electrical & Electronics Engineering, Syed Ammal Engineering College, Ramanathapuram 623 502, during 11-12, April 2014.

As a Chairperson / Convener / General Secretary / Member in the committee

1. Core steering committee member (Special invitee – Convener / NPSC 2018): The 21st National Power Systems Conference (NPSC 2020), organized by the Indian Institute of Technology Gandhinagar, Gujarat during December 17-19, 2020 (online). Also Chaired a technical session on 19th December 2020.

- 2. General Secretary / Convener: 9th National Power Electronics Conference (NPEC 2019), organized by the Department of Electrical and Electronics Engineering, NIT, Tiruchirappalli, during 13-15, December 2019.
- 3. Convener: 20th National Power Systems Conference (NPSC 2018), organized by the Department of Electrical and Electronics Engineering, NIT, Tiruchirappalli, during 14-16, December 2018.
- 4. Organizing committee Chair for the IEI 34th National Convention of Production Engineers and National Conference on "Emerging Technologies in Power Sector Equipment Manufacturing", Organized by IEI Tiruchirappalli Local Centre in association with NIT, Tiruchirappalli and BHEL, Tiruchirappalli, during 25-26 May 2019.
- 5. Thirty-third National Convention of Electrical Engineers 2017 (NCEE 2017) and National Conference on "Hybrid Ac/DC Power Systems for Effective Utilisation of Renewable Energy" Organized by IEI Tiruchirappalli Local Centre in association with NIT, Tiruchirappalli and BHEL, Tiruchirappalli, during November 24-25, 2017.
- 6. Chaired a technical session in IEEE International Conference on Power, Energy & Control (ICPEC'13), organized by PSNA, Dindigul, during 6-8 February 2013.
- 7. IEEE International Conference on ICIAS 2010, during June 15-17, 2010, Kulalampur, Malaysia.(Chaired a technical session)
- 8. 2nd National Level Conference on Power Conversion, System, Drives & Control Technology (PCTCON '07), 30.03.2007, organised by Department of Electrical and Electronics Engineering, PSNA College of Engineering & Technology, Dindigul, Tamil Nadu 624 622 (Chaired a technical session).
- 9. National Conference on "Innovative Strategies on Power Systems and Power Electronic Drives (ISPSPED'07)" On 16th March 2007, organised by Department of Electrical and Electronics Engineering, SONA COLLEGE OF TECHNOLOGY, SALEM-636 005 (Chaired a technical session).
- **10.** 2006 IEEE International Conference on Industrial Technology (ICIT), 15-17, December 2006, Mumbai, India (Chaired a technical session).

As a Paper presenter

- 1. Third International Conference on Engineering, Science, Business and Management 2016 (ICESBM 2016), 9th & 10th March 2016, Dubai, UAE.
- 2. 3rd IEEE International Conference on Sustainable Energy Technologies (ICSET'12) held in Kathmandu, Nepal on 24 27 September 2012
- 3. 6th IEEE international Conference on ICIIS 2011, 16th 19th August 2011, Sri Lanka.
- 4. IEEE International Conference on ICIAS 2010, during June 15-17, 2010, Kulalampur, Malaysia.

- 5. The 8th International Power Engineering Conference (IPEC 2007), 3-6 December 2007, Singapore organized by NTU, Singapore.
- 6. 2006 IEEE International Conference on Industrial Technology (ICIT), 15-17, December 2006, Mumbai, India.
- 7. Sixth International Conference on Electrical Rotating Machines ELROMA-2004, IEEMA, 4th and 5th February 2004, New Delhi.
- 8. IEEE TENCON2003 (IEEE Region 10 Technical Conference on Convergent Technologies For The Asia-Pacific), 15 17 October 2003, Banglore, India.
- 9. 2002 IEEE International Conference on Industrial Technology (ICIT), 11-14, December 2002, Bangkok, Thailand.
- 10. Eleventh National Power Systems Conference NPSC 2000, Vol.1, IISc, Bangalore, 20 22, December 2000.
- 17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

Title of Activity	Level of Event	Date (s)	Role	Venue
	(International/			
	National/ Local)			

- 1. National Power Systems Conference during 14-16 December 2018. (Convener)
- 2. National Power Electronics Conference during 13-15 December 2019. (Convener / General Secretary)
- 3. Technical committee convener for the IEI 33rd National Convention of Electrical Engineers and National Seminar on "Hybrid AC/DC Power systems for Effective Utilization of Renewable Energy" during 24-25 November 2017.
- 4. Organizing committee chair for the IEI 34th National Convention of Production Engineers and National Conference on "merging Technologies in Power Sector Equipment Manufacturing" during 25-26 May 2019.
- 5. Organizing secretary of **Conclave on Academic Reforms** (**CAR2015**) and extended his support for implementing the Flexible Academic Curriculum and Flexible Mode of Delivery and Assessment at NIT, Tiruchirappalli.
- 6. ATAL Faculty Development Programme **On Energy Engineering** (Focused to Electrical Generators and Associated Controllers in Wind Energy Conversion System) Under the aegis of AICTE Teaching and Learning Academy (ATAL) during 28th December 2020 1st January 2021. Co-ordinators: Dr. N. Kumaresan and Dr. M.P. Selvan.
- 7. Faculty development programme on "INDUSTRY 4.0", Under the Self-Financed Category, during 14th 18th September 2020. Co-ordinators: Dr. J. Jerald, Associate Professor, Dept. of Production Engg. Dr. B. Senthil Arasu, Professor, DoMS and Dr. N. Kumaresan, Professor, EEE.

- 8. Workshop on "**Operation and Control of Wind-Solar Hybrid Systems**" sponsored by National Institute of Wind Energy, Chennai, Tamil Nadu- 600100, during 22nd 26th April 2019. Co-ordinators: Dr. N. Kumaresan, Dr. M.P. Selvan & Dr. S. Moorthi.
- 9. Global Initiative of Academic Networks (GIAN) Course on "Intelligent Electrical Power Grids" during 27th November 2017 to 01st December 2017. Coordinators: Dr. N. Kumaresan and Dr. M.P. Selvan. Foreign expert: Dr. Peter Palensky, Professor/Electrical Engineering and Head of Intelligent electric power grids at TU Delft, Netherlands.
- 10. Faculty development programme on "Training Tomorrow's Teacher- Teaching Through Technology", Under the Self-Financed Category, during 20th 24th November 2017. Coordinators: Dr. N. Thamaraiselvan, Asso. Prof., DoMS, Dr.B. Senthil Arasu, Asso. Prof. & Head DoMS and Dr. N. Kumaresan and Dr. J. Daniel Inbaraj.
- 11. Faculty development programme on "Art of Edification: Contemporary & Innovative practices for effective teaching", Under the Self-Financed Category, during 24th 28th April 2017. Co-ordinators: Dr. N. Thamaraiselvan, Asso. Prof., DoMS, Dr.B. Senthil Arasu, Asso. Prof. & Head DoMS and Dr. N. Kumaresan.
- 12. Workshop on "Operation and Control of Wind-driven Generators" under Technical Education Quality Improvement Programme (TEQIP), Phase-II, during 15th-16th April 2016. Coordinators: Coordinators: Dr. S. Senthil Kumar, Dr. N. Kumaresan and Dr. N. Ammasaigounden
- 13. TEQIP II sponsored "Conclave on Academic Reforms", during $27^{th} 29^{th}$ April 2015 at NIT, Tiruchirappalli, Organising Secretaries: Dr. N. Kumaresan & Dr. R. Karvembu.
- 14. Faculty development programme on "Art of teaching: pedagogical tools and techniques season-II", Under the Self-Financed Category, during 17th 21 st November 2014. Coordinators: Dr.B. Senthil Arasu, Asso Prof, DoMS, Dr. N. Thamaraiselvan, Asso Prof & Head DoMS and Dr. N. Kumaresan.
- 15. Faculty development programme on "Art of teaching: pedagogical tools and techniques season-II", Under the Self-Financed Category, during 3rd 7th March 2014. Co-ordinators: Dr.B. Senthil Arasu, Asso Prof, DoMS, Dr. N. Thamaraiselvan, Asso Prof & Head DoMS and Dr. N. Kumaresan.
- 16. Workshop on "Wind-drive Generators (WGs)" under Technical Education Quality Improvement Programme (TEQIP), Phase-II, during 13th-14th December 2013. Coordinators: Coordinators: Dr. N. Kumaresan, Dr. P. Raja and Dr. S. Senthil Kumar.
- 17. Faculty development programme on "Art of teaching: pedagogical tools and techniques", Under the Self-Financed Category, during 18th-22nd November 2013. Co-ordinators: Dr.B. Senthil Arasu, Asso Prof, DoMS, Dr. N. Thamaraiselvan, Asso Prof & Head DoMS and Dr. N. Kumaresan.
- 18. Short-term training program on "Power Electronics and Measurements", Under the Self-Financed Category, during 2nd-3rd May 2013. Co-ordinators: Dr. N. Ammasaigounden, Dr. N. Kumaresan and Dr. G. Saravana Ilango
- 19. Short-term training program on "SOLAR PV Electric Conversion Systems (SPVECS)", Under the Self-Financed Category, during 18th 19th January 2013. Co-ordinators: Dr. N. Ammasaigounden & Dr. N. Kumaresan
- 20. Short-term training program on "Wind Energy Electric Conversion Systems (WEECS)", Under the Self-Financed Category, during 4th 5th January 2013. Co-ordinators: Dr. N. Kumaresan & Dr. N. Ammasaigounden
- 21. Short-term training program on "PIC microcontroller applications in Power Electronic circuits", Under the Self-Financed Category, during 22nd 23rd June 2012. Co-ordinators: Dr. N. Ammasaigounden & Dr. N. Kumaresan
- 22. AICTE-QIP Sponsored Short-Term Course on "Renewable Energy Electric Conversion Systems" Under the Quality Improvement Programme during 14th -18th December 2009. Coordinators: Dr. N. Kumaresan & Mr. P. Raja

- 23. WORKSHOP ON **POWER ELECTRONICS SIMULATION** SEQUEL under the aegis of The National Mission on Power Electronics Technology (NaMPET) an initiative of Department of Information Technology, Government of India, on 4th May 2009. Co-ordinator: Dr. N. Kumaresan
- 24. Workshop on **Power Electronics Education (WPEE 2009**) under the aegis of The National Mission on Power Electronics Technology (NaMPET) an initiative of Department of Information Technology, Government of India, during 22nd 23rd January 2009. Co-ordinators: Dr. C. Nagamani & Dr. N. Kumaresan
- 25. Workshop on "Awareness Programme on Intellectual Property Rights" Under the Services to Community and Economy of the Technical Education Quality Improvement Programme, 20th November 2008.
- 26. **National Workshop on Power Electronics (NWPE 2008)**, Sponsored by NaMPET, CDAC, Trivandrum, during 12th-14th November 2008. Coordinators: Dr. C. Nagamani and Dr. N. Kumaresan.
- 27. MHRD-AICTE Sponsored Summer School on "Power Electronics and Renewable Energy Electric Conversion Systems" during 16th 28th June 2008. Coordinator: Dr. N. Kumaresan.
- 28. AICTE-QIP Sponsored Short-Term Course on "Electrical Machines and Power Electronics in Renewable Energy Systems" Under the Quality Improvement Programme during 28th January 2008 1st February 2008. Coordinators: Dr. N. Kumaresan and Dr. M. P. Selvan.
- 29. Workshop on "Microprocessor, Microcontrollers and Their Applications" Under the Services to Community and Economy of the Technical Education Quality Improvement Programme, 14th and 15th December 2007. Coordinators: Ms. S. Sudha, Dr. N. Ammasaigounden and Dr. N. Kumaresan.
- 30. Workshop on "Recent Trends in Wind Power Generation and FACTS" Under the Services to Community and Economy of the Technical Education Quality Improvement Programme, 28th and 29th August 2007. Coordinators: Dr. C. Nagamani and Dr. N. Kumaresan.
- 31. Workshop on "Electrical Machine Winding" Under the Services to Community and Economy Of the Technical Education Quality Improvement Programme, 14th July 2007. Coordinator: Dr. N. Kumaresan.
- 32. Workshop on "Electrical Science and Electronics for Physics Teachers of Higher Secondary Schools" Under the Technical Education Quality Improvement Programme, 28th and 29th October 2006. Coordinators: Dr. N. Kumaresan and Dr. M. P. Selvan.
- 33. Workshop on "Training Needs for Students of EEE under TEQIP Tribal Development", Under the Technical Education Quality Improvement Programme, 11th October 2006. Coordinators: Coordinators: Dr. N. Kumaresan and Ms. S. Mageswari.
- 34. Workshop on "Topics on Electrical Science and Electronics for Physics Teachers of Higher Secondary Schools" Under the Technical Education Quality Improvement Programme, 15th and 16th October 2005. Coordinator: Dr. N. Kumaresan
- 18. Invited Talks delivered (Last FIVE years)

Topic	Date	Inviting Organization	

- 1. "Optimal Reactive power control of Stand-alone wind-driven DFIGs", in the AICTE sponsored two weeks online faculty development programme on "Trends and Challenges in Power Converters and Control Slot II" scheduled between 04.05.2021 and 18.05.2021, organized by the Department of Electrical and Electronics Engineering, College of Engineering, Anna University, Chennai. 6th May 2021.
- 2. "Operation and control of Squirrel-cage Induction Generators", AICTE sponsored two weeks Faculty Development Programme On "Trends and Challenges in Power Converters and

- Control", organized by the Department of Electrical and Electronics Engineering, College of Engineering, Anna University, Chennai, 10th February 2021.
- 3. "Analysis of Self-Excited Induction Generator (SEIG) Case study: SEIG-Power Converter System Supplying DC Microgrid", AICTE sponsored two weeks Faculty Development Programme On "Trends and Challenges in Power Converters and Control", organized by the Department of Electrical and Electronics Engineering, College of Engineering, Anna University, Chennai, 10th February 2021.
- 4. "Powering Buildings in Smart cities Employing Wind Driven Generators", ATAL Faculty Development Programme On "Smart Cities" Under the aegis of AICTE Teaching and Learning Academy (ATAL), organized by the School of Electrical Engineering in association with Academic Staff College, VIT, Vellore, during 1st 5th February 2021.
- 5. "Reactive power control in wind-driven squirrel-cage induction generators (Stator winding switching scheme)", Workshop on "Renewable Energy Grid Integration: Challenge and Operational Strategies Under the Self-Financed Category, organized by the Department of Electrical and Electronics Engineering, NIT, Tiruchirappalli, during 18th 22nd January 2021.
- 6. "Self-excited induction generator analysis and operational characteristics", ATAL Faculty Development Programme On Energy Engineering (Focused to Electrical Generators and Associated Controllers in Wind Energy Conversion System) Under the aegis of AICTE Teaching and Learning Academy (ATAL), organized by the Department of Electrical and Electronics Engineering, NIT, Tiruchirappalli, during 28th December 2020 1st January 2021.
- 7. "Operation and control of induction generator-power converter system for DC grid and 1-Phase AC grid applications", ATAL Faculty Development Programme On Energy Engineering (Focused to Electrical Generators and Associated Controllers in Wind Energy Conversion System) Under the aegis of AICTE Teaching and Learning Academy (ATAL), organized by the Department of Electrical and Electronics Engineering, NIT, Tiruchirappalli, during 28th December 2020 1st January 2021.
- 8. "Operational aspects of wind-driven generators", One week Faculty Development Programme On "Sustainable Energy Technologies", organized by the Department of Electrical and Electronics Engineering, College of Engineering, Anna University, University College of Engineering, BIT campus, Tiruchirappalli, in association with IEI Tiruchirappalli Local Centre, during 28.07.2020 to 01.08.2020.
- 9. **"Role of power converters in renewable energy systems"**, ATAL Short Term Course on Power Electronic converters and Controllers for EV and Smartgrid Under the aegis of AICTE Teaching and Learning Academy (ATAL), organized by the School of Computer and Electrical Engineering, Indian Institute of Information Technology Design and Manufacturing (IIITDM), Kancheepuram, Chennai during 18/12/2019 to 21/12/2019.
- 10. "Self-Excited Induction Generator Simplified methods of analysis", Workshop on "Operation and Control of Wind-Solar Hybrid Systems" sponsored by NIWE, Chennai, organized by the Department of Electrical and Electronics Engineering, NIT, Tiruchirappalli, during 22nd April 2019 26th April 2019.
- 11. **"Time response analysis & Steady state error"**, Faculty Development Progamme on "Control Systems", organized by the EEE Department, University College of Engineering (BIT Campus), Anna University, Tiruchirappalli during 15.05.2018 to 21.05.2018. (16-05-2018).
- 12. **"Operation and control of wind-driven induction generator-DC microgrid system"**, a Two Days Workshop on the Topic, "Smart Grid and Micro Grid Systems Research Issues" organized by the Department of Electrical and Electronics Engineering, Mepco Schlenk Engg. College, Sivakasi, during 4 & 5, May 2018 (04.05.2018)
- 13. "Role of Wind Energy in Intelligent Electrical Power Grids", AICTE-QIP Sponsored STC on "Nascent Generation and Distribution Technologies, and Potential Research Problems in Power Systems" organized by the Department of EEE, Pondicherry Engineering College, Pondicherry, during December 04-08, 2017. (08.12.2017).

- 14. "Analysis and operation of self-excited induction generator (SEIG) Case study: Winddriven SEIG feeding DC microgrids", AICTE-QIP Sponsored STC on "Nascent Generation and Distribution Technologies, and Potential Research Problems in Power Systems" organized by the Department of EEE, Pondicherry Engineering College, Pondicherry, during December 04-08, 2017. (08.12.2017).
- 15. "Flexible Mode of Delivery and Assessment (FMDA) Flexible Learning and Course Plan", Faculty development programme on "Training Tomorrow's Teacher- Teaching Through Technology", Under the Self-Financed Category, during 20th 24th November 2017 (20.11.2017).
- 16. **"Operation and analysis of self-excited induction genrators"**, Technical Education Quality Improvement Programme (TEQIP-II) sponsored Faculty Development Programme on "Integration of Renewable Energy, Energy Storage and System Operation" organized by the Department of Electrical and Electronics Engineering, Government College of Engineering, Salem 636011, during 14th 20th December 2016 (17.12.2016).
- 17. "SEIG power converter system feeding DC microgrid", Technical Education Quality Improvement Programme (TEQIP-II) sponsored Faculty Development Programme on "Integration of Renewable Energy, Energy Storage and System Operation" organized by the Department of Electrical and Electronics Engineering, Government College of Engineering, Salem 636011, during 14th 20th December 2016 (17.12.2016).
- 18. **"Project proposal writing"**, National Workshop on How to write successful project proposals to funding agencies, organized by the R&D Cell and Department of Electrical and Electronics Engineering, Vivekanandha College of Engineering for Women (Autonomous), Tiruchengode, Tamil Nadu, India on 24.09.2016.
- 19. "Role of Power Electronics in Energy Sector", Technical Education Quality Improvement Programme (TEQIP-II) sponsored Two Days Seminar on Power Electronics for Renewable Energy Systems (PERES-2016) organized by the Department of Electrical and Electronics Engineering, Anna University, BIT campus, Tituchirappalli 620024, during 18th 19th August 2016 (19.08.2016).
- 20. "Operational aspects of wind-driven generators", Technical Education Quality Improvement Programme (TEQIP-II) sponsored Faculty Development Programme on Computation, Optimization and Modelling of Sustainable Energy Systems organized by the Department of Electrical and Electronics Engineering, Anna University, BIT campus, Tituchirappalli 620024, during 20th June 3rd July 2016 (22.06.2016).
- 21. "Grid integration of wind driven generators", Technical Education Quality Improvement Programme (TEQIP-II) sponsored workshop on Utilisation Techniques of Renewable Energy Sources organized by the Department of Mechanical Engineering, NIT, Tituchirappalli, during 6th 9th June 2016 (08.06.2016).
- 22. "Operation and Control of wind-driven stand-alone DFIGs" AICTE- Faculty Development Programme on "Topics of Research in Electrical Engineering (TREE'15)" during May 11-24, 2015, *Organized by the* Department of Electrical and Electronics Engineering, Mepco Schlenk Engineering College (Autonomous), Sivakasi, Tamil Nadu. (11.05.2015 Chief Guest and special lecture)
- 23. "Operation and control of DFIGs with single inverter-battery system" in 9th International Conference on Science, Engineering and Technology (SET), organized by VIT, Vellore, during 6-8 May 2015 (6.5.2015).
- 24. "Operation and Control of Self-Excited Induction Generators (SEIGs)", National Mission on Power Electronics Technology (NaMPET-II) sponsored short term Course on Application of Power Electronics to Renewable Energy Systems and Micro Grids organized by the Department of Electrical and Electronics, NIT, Tituchirappalli, during 9th & 10th January 2015 (09.01.2015).

- 25. "Microteaching", a 3-day TEQIP II sponsored Faculty Development Programme on "The Art of Teaching: Pedagogical Tools and Techniques" organized by Govt. College of Engineering Salem 11, from 9.12.2014 to 11.12.2014 (11.12.2014).
- 26. "Wind-driven induction generators for supplying isolated loads" Short-term course on Renewable Energy Conversion Technology, Jointly organized by Power Electronics Group, CDAC, Thiruvananthapuram and North-Eastern Hill University (NEHU), Shillong under the aegis of National Mission on Power Electronics Technology (NaMPET Phase-II), Department of Electronics & Information Technology (DeiTY), Govt. of India, during 23-24, September 2014 at NEHU, Shillong, Meghalaya (24.09.2014).
- 27. "Power Electronic Controllers For Renewable Energy Applications Wind Energy" in 8th International Conference on Science, Engineering and Technology (SET), organized by VIT, Vellore, during 6-8 May 2014 (6.5.2014).
- 28. "Analysis of Self-Excited Induction Generators using Genetic Algorithm techniques" in International Conference on "Advancements in Automation and Control (ICAAC 2014)" in Association with Journal of Applied Mechanics and Materials held on 11-04-2014, organized by Department of Electrical & Electronics Engineering, Syed Ammal Engineering College, Ramanathapuram 623 502, during 11-12, April 2014.
- 29. "Operation and control of standalone DFIGs for supplying isolated loads" National Mission on Power Electronics Technology (NaMPET-II) sponsored short term Course on Power Electronics in Distributed Generation organized by the Department of Electrical and Electronics, NITK, Surathkal, during 7-9, February 2014 (09.02.2014).
- 30. "Hybrid AC/DC Grid A Future Trend in Power System" TEQIP sponsored Faculty development programme on "Recent trends in power electronics and power systems (RTPEPS)", organized by the Department of Electrical and Electronics Engineering, Pondicherry Engineering College, Pondicherry, during 12th 18th Jnue 2013 (14.6.2013).
- 31. "Controllers in Power Electronics and case study" TEQIP sponsored Faculty development programme on "Recent trends in power electronics and power systems (RTPEPS)", organized by the Department of Electrical and Electronics Engineering, Pondicherry Engineering College, Pondicherry, during 12th 18th Jnue 2013 (14.6.2013).
- 32. "Controllers for Energy Efficient Operation of Grid-connected Induction Generators" AICTE sponsored Faculty development programme on "Renewable Energy ", organized by the Department of Mechanical Engineering, Pondicherry Engineering College, Pondicherry, during 13th 25th May 2013 (17.5.2013).
- 33. **"Solar PV systems"** AICTE sponsored Faculty development programme on "Renewable Energy", organized by the Department of Mechanical Engineering, Pondicherry Engineering College, Pondicherry, during 13th 25th May 2013 (17.5.2013).
- 34. "Improved control schemes for performance enhancement of grid-connected induction generators" AICTE sponsored Faculty development programme on "Efficient control of Renewable energy and its conservation", organized by the Department of Electrical and Electronics Engineering, Government College of Technology, Coimbatore, during 25th April to 8th May 2013 (7.5.2013).
- 35. "Self-excited induction generator and its control" AICTE sponsored Faculty development programme on "Efficient control of Renewable energy and its conservation", organized by the Department of Electrical and Electronics Engineering, Government College of Technology, Coimbatore, during 25th April to 8th May 2013 (7.5.2013).
- 36. **"Operational aspects of Induction Generators"** Faculty development programme on Renewable Energy Sources Technology and Applications organized by the Department of Electrical and Electronics Engineering, Arunai College of Engineering, Tiruvennamalai sponsored by DST, Govt. of India and Entrepreneurship Development Institute of India, during 3-15, December 2012.

- 37. "Operational aspects of Induction Generators" Short term Course on Power Electronics in Micro/Mini Hydropower Generation (PEMHG-12) organized by Dept. of Water Resources Development and Management & Continuing Education Centre, Indian Institute of Technology, Roorkee, during Nov. 29 Dec. 01, 2012.
- 38. "Reactive power Control in Induction Generators", Short term Course on Power Electronics in Micro/Mini Hydropower Generation (PEMHG-12) organized by Dept. of Water Resources Development and Management & Continuing Education Centre, Indian Institute of Technology, Roorkee, during Nov. 29 Dec. 01, 2012.
- 39. "Analysis of SEIGs using GA technique", DST sponsored National Level Seminar on Artifical Intelligence in Renewable energy Systems, organized by National Engineering College, Kovilpatti, Tamil Nadu on 21st January 2012.
- 40. "Controllers for Energy Efficient Operation of Induction Machines", organized by The Institution of Engineers (India), TIRUCHIRAPPALLI LOCAL CENTRE, BHEL Main Office Road, Tiruchirappalli 620 014 at Institution Building(Opp. to Bldg.79), on 13th December 2011(Tuesday) as part of Energy Conservation Day 2011.
- 41. "Anna University Technology, Madurai sponsored Faculty Development Programme on Industrial control Electronics", organized by PSNA CET, Dindugal, during 4-5, February 2011.

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Life membership	The Indian Society for Technical Education (ISTE)	(LM 23990) -1997
Fellow	The Institution of Engineers (India)	F-1218588 - 2016
Member	The Institution of Engineering and Technology (UK) – IET (UK)	84692737-2007
Senior Member The Institution of Electrical and Electronics Engineers – IEEE (USA)		92603680 -2013 2016

20. Academic Foreign Visits

Country	Duration of Visit		Dag over and a	
Country	From	То	Programme	
Dubai	08.03.2016	11.03.2016	To present research paper in 3rd Third International Conference on Engineering, Science, Business and Management 2016 (ICESBM2016)	
Kathmandu, Nepal	24.09.2012	27.09.2012	To present research papers in 3rd IEEE International Conference on Sustainable Energy Technologies (ICSET'12)	
University of Peradeniya, Sri Lanka	16.08.2011	19.08.2011	To present research papers in IEEE – ICIIS 2011 Sponsored by NIT-T	

Country	Duration of Visit		Висомото по	
Country	From	То	Programme	
City university of Hong Kong Advisor : Prof. Henry S H CHUNG	24.03.2009	23.04.2009	Visiting Assistant Professor, Department of Electronics Engineering, City university of Hong Kong Sponsored by AICTE	
NTU, Singapore Advisor : Prof. Lalit Goel	19.11.2007	30.11.2007	Visiting Research Scientist, EEE, NTU, Singapore Sponsored by AICTE	
Singapore	3.12.2007	6.12.2007	To present a research paper in IPEC2007 sponsored by AICTE	
Illinois Institute of Technology, Chicago, USA Advisor: Prof. Ali Emadi	19.04.2007	18.05.2007	Senior Research Associate, ECE, IIT, Chicago, USA Sponsored by TEQIP Project	
University of Wisconsin-Madison, USA Advisor: Prof. Giri, V.	12.05.2007	13.05.2007	Department of Electrical and Electronics Engineering, University of Wisconsin-Madison, College of Engineering	
Bangkok, Thailand	11.12.2002	14.12.2002	To Present a research paper in IEEE International Conference IEEE ICIT '02 sponsored by institute and UGC.	
City Institute of Technology, Malaysia	19.08.1997	20.02.1998	Worked as a Lecturer	

21. Publications

1. Journal publications

1.1 International journal publications

- [1] Nindra Sekhar and Natarajan Kumaresan, "Operation and control of a stand-alone power system with integrated multiple renewable energy sources", Wind Engineering, Vol.46, No.1, 2021, pp.221-239. (ISSN: 0309-524X, Online ISSN: 2048-402X) https://doi.org/10.1177/0309524X211024126.
- [2] Mahaboob Subahani Akbarali, Senthilkumar Subramaniam and Kumaresan Natarajan, "Modeling, analysis, and control of wind-driven induction generators supplying DC loads under various operating conditions", Wind Engineering, Vol.45, No.3, 2021, pp.680-695. (ISSN: 0309-524X, Online ISSN: 2048-402X) https://doi.org/10.1177/0309524X20925398.
- [3] Mahaboob Subahani Akbarali, Senthilkumar Subramaniam and Kumaresan Natarajan, "Application of CS-PWM rectifier for the operation and control of wind-driven generators", Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 2020, https://doi.org/10.1080/15567036.2020.1778140.
- [4] Nindra Sekhar, Paila Lakshmana Rao, Natarajan Kumaresan, Manickavasagam Parvathy Selvan, "Experimental Investigation on a New Hybrid System Employing Wind-Driven DFIG and Solar PV Panels", Journal of The Institution of Engineers (India): Series B, Vol.100, issue. 6, December 2019, pp.561-574, https://doi.org/10.1007/s40031-019-00416-w.

- [5] K. Arthishri, N. Kumaresan and N. Ammasai Gounden, "Analysis and Application of Three-Phase SEIG With Power Converters for Supplying Single-Phase Grid From Wind Energy," IEEE Systems Journal, Vol.13, No.2, June 2019, pp.1813-1822.
- [6] K. A. Nikhil, P. Bharath Chandra, M. R. Jawahar, S. Moorthi, M. P. Selvan and N. Kumaresan, "FPGA-based closed-loop monitoring and control of doubly fed induction generator with single inverter and battery for wind energy conversion", Australian Journal of Electrical and Electronics Engineering, Vol. 15, Issue. 4, 2018, pp. 175–183. (Print ISSN: 1448-837X Online ISSN: 2205-362X)
- [7] Mahaboob Subahani Akbarali, Senthil Kumar Subramanium, Kumaresan Natarajan, "Real and Reactive Power Control of SEIG Systems for Supplying Isolated DC Loads", Journal of The Institution of Engineers (India): Series B, Vol. 99, Issue.6, December 2018, pp. 587-595.
- [8] C.M. Jenisha, N. Ammasaigounden, N. Kumaresan and K.Bhagyasri, "Power electronic interface with de-coupled control for wind-driven PMSG feeding utility grid and DC load", IET Power Electronics, Vol. 11, Issue.2, February 2018, pp.329-338. (SCIE indexed: Print ISSN: 1755-4535 and Online ISSN 1755-4543).
- [9] K. Arthishri, K. Anusha, N. Kumaresan and S. Senthil Kumar, "Simplified methods for the analysis of self-excited induction generators", IET Electr. Power Appl., Vol.11, Issue. 9, 2017, pp.1636-1644. (SCIE indexed: Print ISSN: 1751-8660 and Online ISSN 1751-8679).
- [10] K. Arthishri, N. Kumaresan, N. Ammasai Gounden, "Analysis and MPPT control of a wind-driven three-phase induction generator feeding single-phase utility grid", IET-The Journal of Engineering, April 2017, DOI: 10.1049/joe.2017.0091 (Online ISSN 2051-3305).
- [11] Sumedha Mahajan, Senthil Kumar Subramaniam, Kumaresan Natarajan, Ammasai Gounden Nanjappa Gounder, Devendra Varma Borru, "Analysis and control of induction generator supplying stand-alone AC loads employing a Matrix Converter" Engineering Science and Technology, an International Journal, Vol.20, issue.2, April 2017, pp.649-661. (ISSN: 2215-0986)
- [12] K. Navin Sam, N. Kumaresan, N. Ammasai Gounden and Rajesh Katyal, "Optimal Reactive Power Controller for Wind-Driven Stand-Alone Doubly-Fed Induction Generators" International journal of Wind Engineering, Vol.41, No.2, April 2017, pp.124-143. (eISSN: 2048402X & ISSN: 0309524X)
- [13] K. Navin Sam, N. Kumaresan, and N. Ammasai Gounden, "Wind-driven Stand-alone DFIG with Battery and Pumped Hydro Storage System" Sadhana Academy Proceedings in Engineering Science, Vol.42, Issue.2, February 2017, pp.173-185. (SCIE indexed: ISSN: 0256-2499).
- [14] K. Venkatraman, B. Dastagiri Reddy, M.P. Selvan, S. Moorthi, N. Kumaresan and N. Ammasai Gounden, "Online condition monitoring and power management system for standalone microgrid using FPGAs", IET Generation, Transmission & Distribution, Vol.10, Issue. 15, 2016, pp.3875-3884. (SCIE indexed: ISSN: 1751-8687).
- [15] Sumedha M. Mahajan, S. Senthil Kumar, N. Kumaresan, N. Ammasai Gounden and E. Rajkumar, "Decoupled control strategy for the operation of capacitor-excited induction generator for DC power applications", IET Power Electronics, Vol.9, Issue.13, 2016, pp.2551-2561. (SCIE indexed: ISSN: 1755-4535)
- [16] V. Nayanar, N. Kumaresan, and N. Ammasai Gounden, "Wind-driven SEIG supplying DC microgrid through a single-stage power converter", Engineering Science and Technology, an International Journal, Vol.19, issue.3, August 2016, pp.1600-1607. (ISSN: 2215-0986)
- [17] Dwijasish Das, N. Kumaresan, V. Nayanar, K. Navin Sam and N. Ammasai Gounden, "Development of BLDC Motor Based Elevator System Suitable for DC Microgrid," *IEEE / ASME Transactions on Mechatronics*, Vol. 21, No. 3, June 2016, pp.1552-1560. (SCIE indexed: ISSN: 1083-4435)
- [18] V. Nayanar, N. Kumaresan, and N. Ammasai Gounden, "A single sensor based MPPT controller for wind-driven induction generators supplying DC microgrid," *IEEE Transactions on Power Electronics*, vol. 31, no. 2, Feb. 2016, pp.1161–1172. (SCIE indexed: ISSN: 0885-8993)
- [19] S. Senthil Kumar, N. Kumaresan and M. Subbiah, "Analysis and control of capacitor-excited induction generators connected to a micro-grid through power electronic converters", IET Generation, Transmission & Distribution, Vol.9, Issue.10, June 2015, pp.911-920. (SCIE indexed: ISSN: 1751-8687)
- [20] K. Navin Sam, N. Kumaresan, N. Ammasai Gounden and Rajesh Katyal, "Analysis and control of wind-driven stand-alone doubly-fed induction generator with reactive power support from

- stator and rotor side" International journal of Wind Engineering, Vol.39, No.1, 2015, pp.97-112. (ISSN: 0309-524X)
- [21] K. Vijayakumar, N. Kumaresan and N. Ammasaigounden, "Speed sensor-less MPPT and constant output power operation of wind-driven WRIGs", IET Power Electronics, Vol.8, Issue.1, Jan.2015, pp.33-46. (SCIE indexed: ISSN: 1755-4535)
- [22] S. Senthil Kumar, N. Kumaresan, M. Subbiah and Mahendhar rageeru, "Modelling, analysis and control of stand-alone self-excited induction generator-PWM rectifier systems feeding constant dc voltage applications", IET Generation, Transmission & Distribution, Vol.8, Issue.6, June 2014, pp.1140-1155. (SCIE indexed: ISSN: 1751-8687)
- [23] P. Raja, N. Kumaresan and M. Subbiah, "An Improved Delta-Star Switching Scheme for Reactive Power Saving in Three-Phase Induction Motors", Frontiers in Energy (Springer publication), Vol.8, issue.3, Sep. 2014, pp.364–370. (ISSN Print: 2095-1701 & ISSN Online: 2095-1698)
- [24] K. Vijayakumar, N. Kumaresan, N. Ammasaigounden and Sarath B Tennakoon, "Real and Reactive power control of hybrid excited wind-driven grid-connected DFIGs", IET Power Electronics, Vol.6, Issue. 6, 2013, pp.1197-1208. (SCIE indexed: ISSN: 1755-4535)
- [25] P. Raja, M.P. Selvan and N. Kumaresan, "Enhancement of Voltage Stability Margin in Radial Distribution System with Squirrel Cage Induction Generator based DGs" IET Generation, Transmission & Distribution, Vol.7, Issue.8, 2013, pp.898-906. (SCIE indexed: ISSN: 1751-8687)
- [26] K. Vijayakumar, N. Kumaresan and N. Ammasaigounden, "Operation of inverter assisted wind-driven slip-ring induction generator for stand-alone power supplies", IET Electr. Power Appl., Vol.7, Issue. 4, 2013, pp.256-269. (SCIE indexed: ISSN: 1751-8660)
- [27] S.Senthil Kumar, N.Kumaresan, N. Rakesh, K.Vijayakumar and M. Subbiah, "Wind-driven SEIGs for supplying isolated loads employing DSP based power electronic controllers", International journal of Wind Engineering, Vol.36, No.6, 2012, pp.739-757. (ISSN: 0309-524X)
- [28] S.Senthil Kumar, N. Kumaresan, N. Ammasai Gounden, Namani Rakesh, "Analysis and control of wind-driven self-excited induction generators connected to the grid through power converters", Frontiers in Energy (Springer publication), Vol.6, issue.4, 2012, pp.403–412. (ISSN Print: 2095-1701 & ISSN Online: 2095-1698)
- [29] P. Raja, N. Kumaresan and M. Subbiah, "A Closed Loop System for Inverter Assisted Wind Driven Induction Generators for Supplying Isolated Loads" International Review of Automatic Control (Theory and Applications), Vol.5, No.4, July 2012, pp. (ISSN: 1974-6059)
- [30] K. Vijayakumar, N. Kumaresan, K. Amara Bhagavan and N. Ammasaigounden, "A DSP based closed loop controller for power smoothing operating of wind-driven WRIG systems", International Review on Modelling and Simulations, Vol. 5, No. 1, 2012, pp. 185-192. (ISSN: 1974-9821)
- [31] P.Raja, N. Kumaresan and M. Subbiah, "Grid-connected Induction Generators using Delta-Star Switching of the Stator Winding with a Permanently Connected Capacitor", International journal of Wind Engineering, Vol.36, No.2, 2012, pp.219-232. (ISSN: 0309-524X)
- [32] K. Vijayakumar, N. Kumaresan and N. Ammasaigounden, "Operation and closed-loop control of wind-driven stand-alone DFIGs using single inverter-battery system", IET Electr. Power Appl., Vol. 6, Issue. 3, 2012, pp. 162-171. (SCIE indexed: ISSN: 1751-8660)

- [33] J. Naizath Amirtharaj, K. Siddharth, S. Moorthi and N. Kumaresan, "Voltage control Scheme for a Single Phase Voltage Source Inverter (VSI) using FPGA", Australian Journal of Electrical and Electronics Engineering, Vol. 9, Issue. 2, 2012, pp. 197–207. (ISSN: 1448-837X)
- [34] R. Karthigaivel, N. Kumaresan, and M. Subbiah, "Analysis and control of self-excited induction generator-converter systems for battery charging applications" IET Electr. Power Appl., Vol. 5, Issue. 2, 2011, pp. 247–257. (SCIE indexed: ISSN: 1751-8660)
- [35] R. Karthigaivel, N. Kumaresan, P. Raja and M. Subbiah, "A novel unified approach for the analysis and design of Wind-driven SEIGs using nested GAs", International journal of Wind Engineering, Vol.33, No.6, 2009, pp.631-647. (ISSN: 0309-524X)
- [36] K. Dhanasekaran, N. Kumaresan, and M. Subbiah, "abc-dq modeling and simulation of wind-driven self-excited induction generators", Australian Journal of Electrical & Electronics Engineering, vol.3, No.3, 2007, pp.235-248. (ISSN: 1448-837X)
- [37] N. Kumaresan, "Analysis and control of three-phase self-excited induction generators supplying single-phase ac and dc loads" IEE Proc. Electric Power Applications, Vol. 152, No. 3, May 2005, PP.739-747. (old: ISSN: 1350-2352 & SCIE indexed: ISSN: 1751-8660)
- [38] N. Kumaresan, M.P. Selvan and M. Subbiah, "Design optimisation and speed extension of wind-driven self-excited induction generators A new approach", Electric Power Components and Systems, Vol.32, No.2, February 2004, pp.215-228. (ISSN: 1532-5008)
- [39] N. Kumaresan and M. Subbiah, "Innovative reactive power saving in wind-driven grid-connected induction generators using a delta-star stator winding: part I, Performance analysis of the delta-star generator and test results", International journal of Wind Engineering, Vol.27, No.2, 2003, pp.107 120. (ISSN: 0309-524X)
- [40] N. Kumaresan and M. Subbiah, "Innovative reactive power saving in wind-driven grid-connected induction generators using a delta-star stator winding: part II, Estimation of annual Wh and VARh of the delta-star generator and comparison with alternative schemes", International journal of Wind Engineering, Vol.27, No.3, 2003, pp.195-204. (ISSN: 0309-524X)

1.2 National magazine/Technical volume publications

- [1] <u>N. Kumaresan</u>, M. Subbiah and R. Karthigaivel, "Electrical generators and controllers In wind energy conversion systems an overview" Electrical India magazine, Vol. 50, No. 6, June 2010, pp. 66-74.
- [2] K. VijayaKumar, N. Kumaresan and N. Ammasai Gounden, "Doubly-fed induction generators in wind energy conversion systems An overview" Electrical India magazine, Vol. 54, No. 4, April 2014, pp. 70-76.
- [3] Kumaresan Natarajan, Senthil Kumar Subramanium, Mahaboob Subahani Akbarali, and Subbiah M, "Power Electronic Interfaces for Wind-driven Self-Excited Induction Generators Supplying Standalone dc/ac Loads and dc/ac Micro-grids", Annual Technical Volume of Electrical Engineering Division Board of the Institution of Engineers (India) 2020, Theme: Power Electronic Interfaces for Effective Energy Conversion and Management, pp.113-124.

2. Conference publications

2.1 International conference publications

- [1] M. S. Akbarali, S. Subramaniam and K. Natarajan, "Analysis and control of SEIG-based wind energy conversion system supplying low voltage dc microgrid," 2022 IEEE International Conference on Power Electronics, Smart Grid, and Renewable Energy (PESGRE), Trivandrum, India, 2022, pp. 1-6, doi: 10.1109/PESGRE52268.2022.9715838.
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(C) Books & Monographs

Author(s)	Title of Book /	Name of	Year of	ISSN/ISBN Number
	Monograph	Publishers	Publication	
K Arthishri	Integration of	Scrivener	2021	Print ISBN:9781119750420 Online
	Renewable	Publishing		ISBN:9781119751908
and	Energy Sources	LLC, Wiley	pp. 187-208	
	with Smart Grid.	Online	' '	DOI:10.1002/9781119751908
N Kumaresan		publishing		
	Chapter 9 : Wind			https://doi.org/10.1002/9781119751
	Energy			908.ch9
	Conversion			
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