

CV Outlines:

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Profile summary of Dr. Jai Govind Singh

Employment background:

July 2016 – present: Associate Professor, AIT

Dec 2009 – June 2016: Assistant Professor, AIT

July 2009 – Oct 2009: Postdoctoral Research Fellow, University of Queensland, Brisbane

April 2008 – June 2009: Postdoctoral Research Associate, KTH Stockholm

Aug 2003 – Feb 2008: Doctoral Research Scholar, IIT Kanpur, India

Jun 2003 – July 2003: Research Fellow in ARRPEEC-III, SERD, AIT, Thailand.

March 2003 – July 2003: Sr. Project Associate in (ARRPEEC-III),” EED, IIT Kanpur, India

Teaching and Research focuses:

1. Smart Grid and Renewable Energy Management
2. Microgrid and Distributed Generations
3. Restructuring of Electricity Supply Industry
4. Power System Design and Operations
5. Generations and Integration of Renewable Energy
6. Power Distribution System Planning
7. Electric and Hybrid Electric Vehicles
8. Energy Storage and Performance Assessments

Academic degrees:

1. Ph.D.: IIT Kanpur, India
2. M. Tech.: IIT Roorkee, India
3. B.E.: MNNIT Allahabad, India

Total research projects: 21

Major sponsors are ERASMUS+, USAID, DST, Bangchak Petroleum, IRENA, ADB, EBARA, NSTDA, IEEE PES, ADEME, PEA, etc.

Master and Doctoral research supervisions: 63

1. Master: **54** in AIT and **3** in KTH Stockholm
2. Doctoral: **6** in AIT Thailand

No. of development projects:

1. Pump storage Micro-hydro system
2. 3 kW solar PV testing
3. Online electricity monitoring

Member of research supervisions committee: 145

1. Master: **141**
2. Doctoral: **4**

Training programs organized: 3

1. MP Power Distribution utility
2. Assam Power Distribution utility
3. Assam Generation and Transmission utilities

Published Articles: 92

1. Peer Reviewed International Journal: **28**
2. Peer Reviewed International Conferences: **57**
3. Book chapter: **1**
4. Monographs, reports, policy briefs: **5**
5. Workshop: **1**

Int. conferences organized:

1. Conference director: **1**
2. Co-chair: **1**
3. Member of the technical organizing committee: **5**
4. Advisory board: **4+**

Research impacts:

1. **SCOPUS**: Total citations=447, h-index=12, i10-index=14
2. **Google Scholar**: Total citations=762, h-index=14, i10-index=22
3. **Researchgate**: Total citations=562, h-index=12, RG Score=22.08

Invited as keynote/expert/examiners:

1. Keynote speeches: **12**
2. Expert/Talks: **9**
3. Lectures in training programs for utilities: **30+**
4. Doctoral dissertations evaluation: **13**

I. Biographical Data

A. Name of candidate: Jai Govind Singh

B. Education

Ph.D. (2008), Power and Control, EED, Indian Institute of Technology, Kanpur, India

MTech. (2003), Power System, EED, Indian Institute of Technology, Roorkee, India

B.E. (2001), Electrical Engineering, Motilal Nehru National Institute of Technology, Allahabad, India

C. Positions held

Duration	Position	Affiliation
January 2019 – December 2020	Chair of Energy Academic Program	Department of Energy, Environment and Climate Change, SERD, AIT, Thailand.
June 2017 – December 2018	Director	International Conference on Green Energy for Sustainable Development, 24-26 October, Phuket, Thailand
July 2016 – present	Associate Professor	Department of Energy, Environment and Climate Change, SERD, AIT, Thailand.
December 2009 – June 2016	Assistant Professor	Department of Energy, Environment and Climate Change, SERD, AIT, Thailand.
November 2013 – December 2015	Coordinator	Department of Energy, Environment and Climate Change, SERD, AIT, Thailand.
November 2013 – December 2015	Coordinator	MBA in Energy Business, SERD/SOM, AIT, Thailand.
November 2013 – December 2015	Director	Regional Energy Resources Information Centre, AIT
July 2009 – October, 2009	Postdoctoral Research Fellow	University of Queensland, Brisbane, Australia.
April 2008 – June, 2009	Postdoctoral Research Associate	Electric Power System Division, Royal Institute of Technology-KTH, Sweden.

Jun 2003 – July, 2003	Research Fellow	Asian Regional Research Program in Energy, Environment and Climate-III (ARRPEEC-III), Energy FoS, SERD, AIT, Thailand.
March 2003 – July, 2003	Sr. Project Associate	Asian Regional Research Program in Energy, Environment and Climate-III (ARRPEEC-III),” Department of electrical engineering, IIT Kanpur, India

D. Special honors and awards

- i) Recipient of MHRD (Ministry of Human Resource Department, India) Fellowship for Doctoral study at IIT Kanpur, India.
- ii) Recipient of MHRD (Ministry of Human Resource Department, India) Fellowship for Master study at IIT Roorkee, India.
- iii) Recipient of Young Scientist Travel Financial Assistantship award from Department of Science and Technology (DST), India.
- iv) Recipient of International Travel Support award to attend a conference from Dean of Resources and Alumni Office, Indian Institute of Technology, Kanpur, India.
- v) Recipient of awards in terms of free accommodation by *IEEE PES Student Support Committee* to attend IEEE conference in Florida, USA, 2007, during my Doctoral study.
- vi) Three times recipients of cash award by IIT Kanpur on research articles published in international journals.
- vii) Recipient of class merit-cum-means scholarship in Undergraduate Study.

II. Pedagogy

A. Experience as a teacher (all are Post Graduate courses unless mentioned)

Year	Semester	Courses	Course category	Remarks
2019 (12 credits)	January	ED72.22: Power Sector Management under Deregulation 3(3,0)	Elective	50% co-teaching
		ED72.47: Smart Grid and Electrical Energy Management Systems 2(2,0)	Elective	
		ED72.9028: Renewable Energy Integration and DC Microgrid 1(1-0)	Elective	
	Inter-sem	ED72.9030: Electric and Hybrid Electric Vehicles	Elective	New
	August	ED72.08: Power Distribution Systems 3(3,0)	Elective	
		ED72.07: Power System Design and Operations 3(2,3)	Elective	50% co-teaching
2018 (13 Credits)	January	ED72.21: Power System Dynamics and Stability 3(2,3)	Elective	

		ED72.22: Power Sector Management under Deregulation 3(3,0)	Elective	50% co-teaching
		ED72.20: Workshop on Energy Issues and Communication 1(0,2)	Required	
	Inter-sem	ED72.47: Smart Grid and Electrical Energy Management Systems 2(2,0)	Elective	
		ED72.9028: Renewable Energy Integration and DC Microgrid 1(1-0)	Elective	
	August	ED72.08: Power Distribution Systems 3(3,0)	Elective	
		ED72.07: Power System Design and Operations 3(2,3)	Elective	50% co-teaching
2017 (13 Credits)	January	ED72.21: Power System Dynamics and Stability 3(2,3)	Elective	
		ED72.22: Power Sector Management under Deregulation 3(3,0)	Elective	50% co-teaching
		ED72.20: Workshop on Energy Issues and Communication 1(0,2)	Required	
	Inter-sem	ED72.47: Smart Grid and Electrical Energy Management Systems 2(2,0)	Elective	
		ED72.9028: Renewable Energy Integration and DC Microgrid 1(1-0)	Elective	
	August	ED72.08: Power Distribution Systems 3(3,0)	Elective	
		ED72.07: Power System Design and Operations 3(2,3)	Elective	50% co-teaching
2016 (13+4 [†] credits)	January	ED72.21: Power System Dynamics and Stability 3(2,3)	Elective	
		ED72.22: Power Sector Management under Deregulation 3(3,0)	Elective	50% co-teaching
		ED72.20: Workshop on Energy Issues and Communication 1(0,2)	Required	
	Inter-sem	ED72.47: Smart Grid and Electrical Energy Management Systems 2(2,0)	Elective	
		ED72.9028: Renewable Energy Integration and DC Microgrid 1(1-0)	Elective	
	August	ED72.08: Power Distribution Systems 3(3,0)	Elective	

		ED72.07: Power System Design and Operations 3(2,3)	Elective	50% co-teaching
		BS208: Electrical Engineering and Electronics for Bio-Engineers 4 (3-1)	Elective	UG
2015 (12+4 [†] credits)	January	ED72.21: Power System Dynamics and Stability 3(2,3)	Elective	
		ED72.22: Power Sector Management under Deregulation 3(3,0)	Elective	50% co-teaching
		ED72.20: Workshop on Energy Issues and Communication 1(0,2)	Required	
	Inter-sem	ED72.9022: Smart Grid for Sustainable Development 2(2,0)	Elective	
	August	ED72.07: Power System Design and Operations 3(2,3)	Elective	50% co-teaching
		ED72.08: Power Distribution Systems 3(3,0)	Elective	
		BS208: Electrical Engineering and Electronics for Bio-Engineers 4 (3-1)	Elective	UG
2014 (11+4 [†] credits)	January	ED72.21: Power System Dynamics and Stability 3(2,3)	Elective	
		ED72.22: Power Sector Management under Deregulation 3(3,0)	Elective	50% co-teaching
	Inter-sem	ED72.9022: Smart Grid for Sustainable Development 2(2,0)	Elective	
	August	ED72.07: Power System Design and Operations 3(2,3)	Elective	50% co-teaching
		ED72.08: Power Distribution Systems 3(3,0)	Elective	
		BS208: Electrical Engineering and Electronics for Bio-Engineers 4 (3-1)	Elective	UG
2013 (14.5+3* credits)	January	ED72.21: Power System Dynamics and Stability 3(2,3)	Elective	
		ED72.22: Power Sector Management under Deregulation 3(3,0)	Elective	50% co-teaching
		ED72.22: Power Sector Management under Deregulation 3(3,0) (PMEBM)*	Elective	50% co-teaching
	Inter-sem	ED72.9022: Smart Grid for Sustainable Development 2(2,0)	Elective	

	August	ED72.07: Power System Design and Operations 3(2,3)	Elective	
		ED72.08: Power Distribution Systems 3(3,0)	Elective	
		ED72.9026: Integration of Renewable Sources in Power Systems 2(2,0)	Elective	New course
2012 (12.5+3* credits)	January	ED72.21: Power System Dynamics and Stability 3(2,3)	Elective	
		ED72.22: Power Sector Management under Deregulation 3(3,0)	Elective	50% co-teaching
	Inter-sem	ED72.9022: Smart Grid for Sustainable Development 2(2,0)	Elective	
	August	ED72.07: Power System Design and Operations 3(2,3)	Elective	
		ED72.08: Power Distribution Systems 3(3,0)	Elective	
		ED72.08: Power Distribution Systems 3(3,0) (PMEBM)*	Elective	
2011 (12.5 credits)	January	ED72.21: Power System Dynamics and Stability 3(2,3)	Elective	
		ED72.22: Power Sector Management under Deregulation 3(3,0)	Elective	50% co-teaching
	Inter-sem	ED72.9022: Smart Grid for Sustainable Development 2(2,0)	Elective	New course
	August	ED72.07: Power System Design and Operations 3(2,3)	Elective	
		ED72.08: Power Distribution Systems 3(3,0)	Elective	
2010 (10 credits)	January	ED72.21: Power System Dynamics and Stability 3(2,3)	Elective	
	August	ED72.07: Power System Design and Operations 3(2,3)	Elective	
		ED72.08: Power Distribution Systems 3(3,0)	Elective	
		ED72.9019: Integration of renewable energy resources in power system 1(1,0)	Elective	New course

*PMEBM: Professional Master in Energy Business Management

†Undergraduate (UG) Course

Post Graduate Taught Courses/Tutorials at other Institutions:

- Power system advanced course: (KTH, Stockholm, Sweden, as a teaching assistant)

- Power System Simulations Lab Development: 1st year postgraduate Lab (**EED, IIT Kanpur**, as tutor)
- Power system economics operation and control: 1st year postgraduate course (**EED, IIT Kanpur**, as a tutor)
- Economic operation and control of power systems: Sequential M. Tech. Program of Uttar Pradesh Technical University, Lucknow (**Invited Course Lectures**)

Undergraduate Taught Courses/Tutorials at other Institutions:

- Engineering Science: 1st year undergraduate course (**IIT Roorkee**, as a tutor)
- Engineering Science Optional: 2nd year undergraduate course (**IIT Roorkee**, as a tutor)
- Engineering Science: 1st year undergraduate course (**IIT Kanpur**, as a tutor)
- Engineering Science Optional: 2nd year undergraduate lab (**IIT Kanpur**, as a tutor)
- Basic Power Electronics: 2nd year undergraduate course (**IIT Kanpur**, as a tutor)

B. Pedagogical Development

1. Publications: textbooks, laboratory manuals, articles in journals oriented toward pedagogy. None
2. Grants related to pedagogy and curriculum development.
 - i) Developing curricula for master's degree Program under the project 'Mastering in Energy Supply for Isolated Areas (MESfIA)' sponsored by ERASMUS+
 - ii) I was involved in developing two Master Courses for National University of Laos (NUOL) in a project of curriculum development and sponsored by SIDA.
3. Initiation of new courses, degree programs, curricula (indicate the period delivered)
 - i) As a Chair of Energy Academic Program, leading the team to develop a brand-new Postgraduate Program called as 'Sustainable Energy Transition' for Master and PhD degree students, which would be implemented from August 2020. This new program would reflect all new developments in technological advancement and well as catering the emerging challenges in society and environment. Furthermore, all courses are being upgraded to cater the above things.
 - ii) Offered a 3-credit new course on *Electric and Hybrid Electric Vehicles* 3(3,0) in Inter-semester 2019.
 - iii) A one credit new course titled "*ED72.9028: Renewable Energy Integration and DC Microgrid 1(1-0)*" has been developed and offered in Inter semester 2016.
 - iv) Contributed in developing new UG curricula (BS208: Electrical Engineering and Electronics for Bio-Engineers 4 (3-1)) in August 2014.
 - v) A new doctoral degree program titled "PhD in Energy Business" has been developed in collaboration with SOM in 2014.
 - vi) A new Policy and Procedure has been developed in collaboration with SOM to enabled "Professional Master" degree holders to be eligible to apply for regular AIT Master Degree from 2014 with option to transfer credits gained in their Professional Master degree.
 - vii) A new Policy and Procedure has been developed in collaboration with SOM to enabled "Professional Master" degree holders to be eligible to apply directly in Unified Master leading to Doctoral degree programs from 2014 with transfer of credits gained in their Professional Master degree.

- viii) One credit previously developed course *ED72.9019* modified and extended in two credit course titled“ *ED72.9026: Integration of Renewable Energy Sources in Power System 2(2,0)* ” and offered in August semester 2013.
- ix) Involved as a member and contributed to develop a new degree program called as “MBA in Energy Business” and first batch started from August-2012.
- x) Involved as member and contributed to develop a new professional program called as “Professional Master in Energy Business Management” and first batch started from August-2012.
- xi) A two credit new interdisciplinary course titled“ *ED72.9022: Smart Grid for Sustainable Development 2(2,0)* ” has been developed and offered in each Inter semester from 2011 and onwards.
- xii) A one credit course titled“ *ED72.9019: Integration of Renewable Energy Resources into Power System 1(1,0)* ” has been developed and offered in Inter semester 2010.

4. Development and introduction of innovative pedagogical techniques.

- i) Course materials prepared for 3 credit new course on *Electric and Hybrid Electric Vehicles 3(3,0)*.
- ii) A one credit revised new course material entitled“ *ED72.9028: Renewable Energy Integration and DC Microgrid 1(1,0)* ” has been developed in 2016 for post graduate students.
- iii) Revised 8 courses in 2015 under curriculum review process lead by ADRC, AIT.
- iv) Prepared course materials for new UG curricula (BS208: Electrical Engineering and Electronics for Bio-Engineers 4 (3-1)) in August 2014.
- v) A two-credit new course material entitled“ *Integration of Renewable Energy Sources in Power System (ED72.9026)* ” has been developed and offered in 2013 for post graduate students.
- vi) A two-credit new course material entitled“ *Smart Grid for Sustainable Development (ED72.9022)* ” has been developed in 2011 for post graduate students and since then continuously offering in every inter-semester.
- vii) A one credit new course material entitled“ *Integration of Renewable Energy Resources into Power System (ED72.9019)* ” has been developed in 2010 for post graduate students.
- viii) I have revised/updated half of three credit course entitled“ *Power Sector Management under Deregulation (ED72.22)* ” in 2011 and onwards.

5. Participation in workshops, short courses, etc. relating to improvement of teaching.

- i) Seminar on ‘**Blockchain 1-2-3, What Electrical Engineers Need to Know!**’ organized by IEEE Thai Chapter on 12th December in Centara Grand at Central Ladprao, Bangkok.
- ii) Institute wide workshops: ERASMUS + project proposals titled“ **Practical Approach on Erasmus + Capacity Building in Higher Education** organized by

the President's Office and the Sponsored and Contracted Projects Unit on 30th October 2018.

- iii) IEEE PES Webinar, "How to Write a Quality Technical Paper and Where to Publish Within IEEE," presented by Saifur Rahman, Advanced Research Institute at Virginia Tech, on 3rd March, 2015.
- iv) Wind Power Integration Seminar, 27th April 2009, KTH, Sweden.
- v) Short-term training course on "*Best Practices in Transmission and Distribution of Power*", 27-29, November, 2007, IIT Kanpur.
- vi) Short-term QIP course on "*Power System Operation and Control*", IIT Kanpur, August 2006.
- vii) National Workshop on "Electric Power Quality" during Nov. 9-10, 2004.
- viii) Training workshop on "*Electric Power Distribution: Reforms, Automation and Management*", EE Dept. IIT Kanpur, May 10-14, 2004.

III. Student Research Supervision

- A. **Theses supervised.** Number of master and doctoral students graduated each year, on which the faculty served as committee chair or co-chair.

3.A.1 Summary of student research supervision at AIT (January 2008 – April 2017)

STUDENT S	COMPLETED			IN-PROGRESS		
	Chair of the Committee	Co-Chair of the Committee	Member of the Committee	Chair of the Committee	Co-Chair of the Committee	Member of the Committee
Doctoral	4	2	4	4	0	4
Master's	53	4	141	3	0	9

Note: In above table, two master supervision and one co-supervision at KTH, Stockholm are also included.

- B. **Doctoral students.** For each student who obtained/pursuing the doctoral degree under your supervision, provide the following:

Summary of Doctoral Research Supervisions as Chairperson:

(Name, Nationalities, Status/Year of Completion, Dissertation title)

In progress:

1. Mr. Trung Quang Nguyen (**Vietnamese**, Pursuing): Optimization of the renewable energy sources into the distribution expansion planning in term of demand response
2. Miss Panaya Sudta (**Thai**, Pursuing): Economic and Technical affectation of Prosumer Model and Disruptive Energy Technologies (**Publication:** One paper in international conference)
3. Mr. Pornchai Chaweewat (**Thai**, Pursuing): Electricity Pricing Forecasting in Smart Grid by using Python based Machine Learning tools (**Publication:** Two paper in international conference)
4. Ms. Raja Nivedha (**Indian**, Pursuing): Dynamic performance analysis of power system with low rotational inertia equipment (**Publication:** Two paper in international conference)

Completed:

5. Ms. Anongpun Man-Im (**Thai**, Co-chair, 2019): Multi-objective OPF using Stochastic Weight Trade-off NSPSO (**Publication:** Two papers in international conference and another one in

- international journal, and one book chapter) [**working in public company, i.e. Electricity Generating Authority of Thailand (EGAT)**]
6. Mr. Nimal Madhu M (**Indian**, 2016): Power Flow and ATC Estimation in Modern Power Systems (**Publication**: 5 articles in journal and 5 international conference papers are published) (**working as a postdoctoral fellow in AIT**)
 7. Mr. Nikhil Sasidharan (**Indian**, 2016): Renewable Powered Hybrid AC/DC Home Community Grid (**Publication**: 5 articles in journal and 5 international conference articles are published and another one journal article is revised and resubmitted submitted) (**working as an Assistant Professor in NIT Kochi, India**)
 8. Mr. Vivek Mohan (**Indian**, 2016): Stochastic Optimal Energy, Reserve and Risk Management in Microgrid (**Publication**: 6 articles in journals and 7 papers in international conference are published) (**working as an Assistant Professor in NIT Trichy, India**)
 9. Mr. I Made Wartana (**Indonesian**, 2012): Optimal Placement of Multiple FACTS Devices for Maximizing Loadability by PSO (**Publication**: Published two journal and four conference articles) (**working as a Professor in Institut Teknologi Nasional (ITN) Malang, Indonesia**)
 10. Mr. Sasidharan Sreedharan (**Indian**, Co-chair, 2010): Development of the PSO Based Robust Controller for Maximizing Wind Energy Penetration in Power Systems (**Publication**: Three journals and five conference articles) (**working as a Professor and Head in MES, Kerala, India**)

Summary of Doctoral Research Supervisions as Member:

(Name, Nationalities, Status/Year of Completion, Dissertation title)

In progress:

1. Mr. Ankit Bhatt (**Indian**, Pursuing): Machine Learning Based Health Estimation of Second Life Batteries in Micro-Grid Storage Application
2. Mr. Vatee Laoharajanaphand (**Thai**, Pursuing): Optimal Generation Scheduling of Hybrid Solar Photovoltaic-Wind-Hydro-Energy Storage under Thailand's National Energy Trading Platform
3. Mr. Sheraz Khan (**Pakistani**, TC/SET, Pursuing): Demand-Side Energy Management in Smart Grid Using Cognitive Radio Communications
4. Mr. Titipong Samakpong (**Thai**, Pursuing): Robust Optimization-Based AC Optimal Power Flow for Managing Wind and Solar Power Uncertainty

Completed:

5. Mr. Sittichoke Pookpunt (**Thai**, 2017): Optimal Placement of Wind Turbine Using a Discrete Particle Swarm Optimization with Time-Varying Acceleration Coefficients (**working as an Assistant Professor in Narsuan University, Thailand**)
6. Mr. Minn Thu Aung (**Burmese**, WEM/SET, 2016): Assessment of Climate Change Impacts on Hydrology and Hydropower Generation in Belu Chaung Basin of Myanmar
7. Ms. Jirawadee Polprasert (**Thai**, 2016): Security Constrained Optimal Power Flow Using Self-Organizing Hierarchical Particle Swarm Optimization (**working as an Assistant Professor in Narsuan University, Thailand**)
8. Mr. Saksorn Chalermchaiarbha (**Thai**, 2012): Multi-Objective Economic Dispatch by Stochastic Weight Trade-Off Particle Swarm Optimization

C. **Master students.** For each student who obtained/pursuing the master degree under your supervision, provide the following:

Master Thesis Supervisions as Chairperson:

(Name, Nationality, Graduation Year, Thesis/Research/Project titles)

In progress

1. Ms. Wanwisa Peanpitak (**Thai**, May 2020): Potential and Financial Analysis of Floating PV (FPV): A Case Study of Thailand
2. Mr. Kaung Myat San (**Burmese**, May 2020): Wind Speed Forecasting by Using Deep Learning Method and Financial Analysis: A Case Study of Meikhtila in Myanmar
3. Mr. Sathi Manikanteswara Reddy (**Indian**, Research study, May 2020): Battery Swapping Mechanism for Electric Vehicle Charging

Completed

4. Mr. Malisetty Revanth (**Indian**, December 2019): Determining the Optimal Incentive to Power Utility and the Customers in Electric Power Markets
5. Mr. Ugyen Tempa (**Bhutanese**, Research study, December 2019): Assessment of Solar Energy Potential using GIS and Multi Criteria Decision Making-AHP Approach: A Case Study of Bumthang Valley (**Publication**: One article submitted in international conference) (**working in Bhutan Power Corporation**)
6. Mr. Sonam Tobgay (**Bhutanese**, Research study, December 2019): Power Flow Tracing and Loss Allocation Methods: A Case Study of Bhutan Power System (**Publication**: One article submitted in international conference) (**working in Bhutan Power Corporation**)
7. Mr. Shubham Tiwari (**Indian**, December 2019): A Decentralized Primary Frequency Response and Inertia Control of Energy Storage Units for Hybrid Renewable Energy Microgrid Systems (**Publication**: One article submitted in EPSR journal) (**working as Research Assistant in AIT**)
8. Mr. Lim Pila (**Cambodian**, December 2019): Optimal Protection Coordination by Modifying the Back-up Relay Characteristics in Active Distribution Systems (**working in Electricite du Cambodge, EDC, Cambodia**)
9. Mr. Manish Kumar (**Indian**, December 2019): Transmission Congestion Management by Using Generation Shift Factors and Machine Learning Approach (**Publication**: One article submitted in international conference) (**working in a startup company**)
10. Mr. Meas Nimol (**Cambodian**, December 2019): Transmission Expansion Planning by Using Deterministic and Stochastic Approaches: A Case Study of Cambodian Transmission System (**working in Electricite du Cambodge, EDC, Cambodia**)
11. Mr. Prachya Laochoo (**Thai**, Research Study, June 2019): Impact and Mitigation Analysis of EV Charging System on Transformer Loading and Sizing of the Solar PV Rooftop System and Battery Storage in Commercial Buildings (**working in Provincial Electricity Authority Thailand**)
12. Mr. Srinivas Akasapu (**Indian**, Research study, May 2019): An Approach to Minimize the Range Anxiety of Electric Vehicles with Different State-of-Charge of the Battery
13. Mr. Pham Xuan Dien (**Vietnamese**, May 2019): A Probabilistic Approach to Short-term Solar-Wind-Hydro-Thermal Coordination by using Cumulants and Modified Clustering-based Scenario Reduction Technique (**Publication**: Two paper submitted in international journal) (**working in Vietnam Electricity, EVN**)
14. Mr. Tanit Chanraksa (**Thai**, May 2019): Benefits of Demand Response with Controllable Loads in Smart Grid: A Case Study of Pattaya City, Thailand (**Publication**: One paper ready to submit in international journal) (**working in Provincial Electricity Authority Thailand**)
15. Mr. Tong Megnhour (**Cambodian**, May 2019): A Multi-Objective Approach to Allocate Distributed Generations in Balanced and Unbalanced Distribution Networks by Using Ant Lion Optimizer (**Publication**: One paper submitted in international journal)
16. Ms. Aagya Niraula (**Nepalese**, May 2019): Deep Learning-Based Approach for State-of-Health Estimation of Lithium-Ion Battery in Electric Vehicle (**Publication**: One paper ready to submit in international journal)

17. Md. Ariful Islam (**Bangladeshi**, May 2019): Duck Curve Problem Solving Strategies with Neuro-Fuzzy Control Method by Using Solar PV, PEVs and Load Shifting (**working as faculty in Ahsanullah University of Science and Technology, Bangladesh**)
18. Mr. Pullagura Syam Sundar (**Indian**, Research study, May 2019): An Approach to Optimal DG Placement and Network Reconfiguration for Active Power Loss Minimization in a Distribution System using PSO and Tabu Search Algorithms (**working in AIT Thailand**)
19. Mr. Somalaraju Kalyan (**Indian**, Research study, December 2018): Enhancement of Power Generation from Electromagnetic Scavenging Tile
20. Mr. Kean Pagna (**Cambodian**, Research study, December 2018): Load Profile Management by Using Energy Storage and Solar PV in Power Distribution Systems (**working in Electricite du Cambodge, EDC, Cambodia**)
21. Mr. Swejan Rangishetti (**Indian**, December 2018): Analysis of a Three Phase Electric Spring in Solar PV Connected Power Networks
22. Mr. Hruday Vemuri (**Indian**, Research study, May 2018): Smoothing the Load Profile by Using a Fuzzy Control Strategy of Plug-in Electric Vehicles (PEVs) in Smart Grids (**working as a Senior Electrical Engineer in Hyderabad, Telangana**)
23. Mr. Sukit Ingprasert (**Thai**, May 2018): Frequency Stability Analysis of Virtual Power Plants in a Microgrid Using Load Droop Control Method
24. Ms. Rachawadee Puangskura (**Thai**, May 2018): Multi-Objective Optimization for Enhancing System Coordination Restoration by Placement of Fault Current Limiters on an Active Distribution System with System Reliability Considerations (**working in Provincial Electricity Authority Thailand**)
25. Mr. Do Quang Viet (**Vietnamese**, May 2018): Optimal Procurement of Energy and Ancillary Services in Smart Grid (**working in Vietnam Electricity, EVN**)
26. Mr. Srikanth Mukkamalla (**Indian**, July 2017): Optional Scheduling of Customers' Demand by using Availability of Power and its Price in Smart Grid (**Publication**: One international conference articles) (**Pursuing PhD in IIT Roorkee, India**)
27. Ms. Menaka Karki (**Nepalese**, May 2017): An Approach to Enhance the Life of Transformer and the Battery of Gridable Vehicles in Active Distribution Systems (**Publication**: One international conference articles) (**working as a faculty in Tribhuvan University, Nepal**)
28. Mr. Md. Golam Mostafa (**Bangladeshi**, May 2017): Probabilistic and Combinatorial Approaches for Power Loss Minimization in Distribution Systems (**Publication**: Two paper in international conferences) (**working as a faculty in International Islamic University Chittagong, Bangladesh**)
29. Mr. Pawarong Thepparat (**Thai**, December 2017): Short-Run Electricity Generation Scheduling Considering Different Fossil and Renewable Supply Constraints [**working in public company, i.e. Electricity Generating Authority of Thailand (EGAT)**]
30. Mr. Mrutyunjaya Nanda (**Indian**, December 2017): Modeling and Placement of an Electric Spring in a Distribution System (**working as Power System Engineer in ENGIE Impact Thailand**)
31. Mr. Watcharakorn Pinthurat (**Thai**, May 2016): Modeling and Stability Analysis of Thailand Power Grid Interconnection (**Publication**: two papers in scopus cited international conferences) (**pursuing PhD in UNSW Sydney, Australia**)
32. Mr. Tristan Guzman Magallones, Jr (**Filipino**, May 2016): Modeling and Dynamic Performance Analysis of the Philippine-Sabah Power Grid Systems (**Publication**: two papers in scopus cited international conferences) (**working as a faculty in Central Mindanao University, Philippines**)
33. Ms. Happy Aprillia (**Indonesian**, December 2014): Optimal Capacitor Placement by Considering Minimum Harmonic Distortion on Unbalanced Three Phase Radial Distribution System Using Direct Search Algorithm (**Publication**: one paper published in an international conference) (**pursuing PhD in National Cheng Kung University, Taiwan**)

34. Mr. Pornchai Chaweewat (**Thai**, May 2014): Operational and Economic Assessment of Microgrid: A Case Study of Mae Sariang, Thailand (**Publication:** Two papers are published in international conferences) (**working in Provincial Electricity Authority Thailand**)
35. Mr. Nachapol Wongwantanee (**Thai**, May 2014): Load Curtailment Minimization in Intentional Islanded Networks and Its Restoration Strategy Considering Voltage Stability Issues (**Publication:** Two papers are published in an international conference) (**working in Provincial Electricity Authority Thailand**)
36. Mr. Subas Ratna Tuladhar (**Nepalese**, May 2014): Impact of Network Reconfiguration on Distribution Network Performance with Solar and Wind Generation using Non-Dominated Sorting Particle Swarm Optimization (**Publication:** One article in international journal (**Publication:** one paper in international journal (ISI IF 1.35) and another one paper in international conference) (**working as a Senior Electrical Engineer at Hydro-Consult Engineering Limited. Nepal**)
37. Ms. Sonticha Panich (**Thai**, May 2014): Impact of Plug-in Electric Vehicles on Voltage Imbalance in Distribution System (**Publication:** One paper published in international conference and then same selected for publication in international journal) (**working in Provincial Electricity Authority Thailand**)
38. Ms. Kongsiri Mongkholkaset (**Thai**, May 2014): Flicker Problem Assessment of Different Wind Turbine Models in a Distribution System (**working in Provincial Electricity Authority Thailand**)
39. Ms. Pathatai Dharmasaroj (**Thai**, May 2014): Impact of Solar PV Penetration on Harmonic and Flicker Problems and Their Mitigation in the Distribution System (**working in Provincial Electricity Authority Thailand**)
40. Ms. Thitiporn Chaipattanawan (**Thai**, May 2014): Impact of Location and Penetration Level of Solar PV on Fault Current in a Distribution System (**working in Provincial Electricity Authority Thailand**)
41. Mr. Muhammad Shahzad Raee (**Pakistani**, Project, December 2013): A Comprehensive World Contemporary Disco's Approach for Reducing Technical and Non-Technical Losses in Electrical Power Distribution: A Case Study of MEPCO (**working in Multan Electric Power Company, Pakistan**)
42. Mr. Qaser Abbas (**Pakistani**, Project, December 2013): Improving the Performance of Electricity Distribution Feeder through Selecting Suitable Demand Side Management Activities: Making A Business Case (**working in Multan Electric Power Company, Pakistan**)
43. Mr. Muhammad Raza Zaffar (**Pakistani**, Project, December 2013): Line Losses Reduction through Bifurcation of Feeders: A Case Study of a Cost Benefit Ratio Analysis in MEPCO (**working in Multan Electric Power Company, Pakistan**)
44. Mr. Muhammad Saadat Siddique (**Pakistani**, Project, December 2013): Metering Losses in an Electricity Distribution System (**working in Multan Electric Power Company, Pakistan**)
45. Mr. Muhammad Waqas Zafar (**Pakistani**, Project, December 2013): An Approach for Suitable Maintenance Procedures to Improve the Technical and Financial Performance of Power Transformers (**working in Multan Electric Power Company, Pakistan**)
46. Mr. Pham Tuan Ngoc (**Vietnamese**, May 2013): Vietnam Optimal Placement of Fault Current Limiters to Reduce Short Circuit Current Level in Vietnam's Power Transmission Network (**Publication:** one paper published in an international journal) (**working in Vietnam Electricity, EVN**)
47. Ms. Tipaporn Munkong (**Thai**, May 2013): Impact of Distributed Generations on Small Signal Stability in Power Distribution Networks
48. Mr. Mujtaba Manavi (**Afghani**, May 2013): Impact of Renewable Power Source Integration on Voltage Stability in Southern Power System Network of Afghanistan (**working as a faculty in Kandahar University, Afghanistan**)

49. Ms. Hathaikan Mee-Kham (**Thai**, May 2013): A Multi-Objective Approach for Optimal Placement of DG to Enhance Power Distribution Network Performance using NSPSO (**working in Provincial Electricity Authority Thailand**)
50. Mr. Ta Nguyen Tan (**Vietnamese**, May 2013): Vietnam Optimal Operation of Cascade Hydropower Plants: A Case Study of IALY Hydropower Company in the Central Region of Vietnam (**working in Vietnam Electricity, EVN**)
51. Mr. Nguyen Vinh Phuc (**Vietnamese**, May 2012): Vietnam A Probabilistic Power Flow Analysis Using the Cumulant Method and Gram-Charlier Series Expansion (**working in Vietnam Electricity, EVN**)
52. Mr. Supan Thonprom (**Thai**, Co-chair, December 2012): A Study on Measures Towards Green Building: A Case Study of the AIT Energy Building (**working in Provincial Electricity Authority Thailand**)
53. Mr. Natthaphatr Watthanasiriphuwadech (**Thai**, December 2011): A PSO Based Probabilistic Load Flow Approach for Minimization of the Load Shedding by Optimal Capacitor Placement in the Power Distribution System (**working in Provincial Electricity Authority Thailand**)
54. Mr. Dinh Xuan Duc (**Vietnamese**, 2011): Vietnam Water Valuation in the Vietnamese Competitive Generation Market (**Publication**: one paper published in international conference) (**working in Vietnam Electricity, EVN**)
55. Mr. Tran Tien Hung (**Vietnamese**, 2011): Vietnam Electromagnetic Transient Simulation for the 500 kV Vinh Tan - Song May Transmission Line (**working in Vietnam Electricity, EVN**)
56. Ms. Pauranee Satphaisarnkit (**Thai**, Co-chair, December 2010): Impacts of Distributed Generation on the Protective Devices in the PEA Distribution System (**working in Provincial Electricity Authority Thailand**)
57. Ms. Ratchaporn Vairuangsiripong (**Thai**, Co-chair, December 2010): Impact of Distributed Generation in Steady State, Voltage and Transient Stability Analysis: A Case of Dansai System, Thailand (**working in Provincial Electricity Authority Thailand**)
58. Mr. Hassan Qazi Wazhat (**KTH Sweden, Pakistani**, 2009): Development of Sensitivity Based Indices for Optimal Placement of UPFC to Minimize Load Curtailment Requirements (**Publication**: One paper in international journal (Thomson Reuters IF= 1.084)) (**working as a Senior lead engineer - Renewable integration at EirGrid, Ireland**)
59. Mr. Priyanko Guha Thakurta (**KTH Sweden, Indian**, 2009): An Approach for Optimal Placement of SVC to Minimize Load Curtailment (**Publication**: One paper in international journal (Thomson Reuters IF= 1.084)) (**working as Postdoctoral Fellow in Energy Institute, UCD, Dublin, Ireland**)
60. Mr. Umair Mahmud Sheikh (**KTH Sweden, Pakistani**, Co-chair, 2009): Analysis of Power System Stability by Using Optimally Located SVC and STATCOM (**working in Siemens, UK**)

Special Study Supervision as Committee Chair:

1. Mr. Pongsan Rattanaathiporn (**Thai**, May 2019): Study of Potential Microgrid Business Models for Power Utilities (**working in Metropolitan Electricity Authority, Thailand**)
2. Mr. Piyapong Prachuab (**Thai**, May 2019): Analysis for Dissolved Gas-in-oil of Power Transformer Using Artificial Neural Network Technique (**working in Metropolitan Electricity Authority, Thailand**)
3. Mr. Supnirun Suwannasorn (**Thai**, May 2019): Study of Voltage, Harmonics and Protection Issues in Variable Renewable Energy Integration and Control (**working in Metropolitan Electricity Authority, Thailand**)
4. Mr. Wasawat Sukrung (**Thai**, May 2019): Study of Different Communication Systems for AMR and AMI Application in MEA's Distribution Area (**working in Metropolitan Electricity Authority, Thailand**)

Member list of Master Program Committee for Thesis/Research/Project:

In progress

1. Mr. Hassan Fazliani (**Iranian**, May 2020): Water Desalination Operated by Renewable Energy: A Case from Iran
2. Mr. Vivek Sharma Poudel (**Nepalese**, May 2020): Fabrication of Photo-Thermoelectric Energy Generator using Gold Nanoparticle Decorated Zinc Oxide Nanorods
3. Ms. Thitaporn Tubpong (**Thai**, May 2020): Machine Learning Based Asset Management for Power Transformer Maintenance
4. Mr. Woravich Rojthavol (**Thai**, May 2020): The Proposed Structure for Local Electricity Market in Thailand
5. Mr. Khin Yadana Kyaw (**Burmese**, May 2020): Development of Master-Slave Exoskeleton System with Haptics
6. Mr. Satyanarayana Murthy Yedla (**Indian**, December 2019): Enhancement power quality with Solar PV and Batter Storage in Microgrid
7. Mr. Vishnu Thulasi (**Indian**, ICT, Research Study, December 2019):
8. Mr. Patthanapun Boonthong (**Thai**, December 2019): Economic Dispatch using Cost-based Droop Schemes in Island Microgrids Case Study: Mea Saring microgrid Project
9. Mr. Abbireddy Siva Rama Chandra Reddy (**Indian**, December 2019): A Study on Ethanol Production from Sugarcane Bagasse

Completed

10. Mr. Niel Madhav Patamsetti (**Indian**, December 2019): Strategic Cost Optimization in a Microgrid Prosumer Community
11. Mr. Pushpa Lal Acharya (**Bhutanese**, Research Study, December 2019): Evaluation of Social, Economic and Environmental Impacts of Rural Electrification in Bhutan
12. Mr. Sreeram Gopal Taninki (**Indian**, December 2019): Carbon Capture Potential of Micro Algae Cultivation System with Flue Gas from Coal Fired Thermal Power Plant in Andhra Pradesh.
13. Mr. Sonam Pelden Tshwang (**Bhutanese**, Research Study, December 2019): Improving Energy Efficiency in Bhutan Power Corporation Head Office Building, Thimphu, Bhutan
14. Mr. Phuntsho Norbu (**Bhutanese**, Research Study, December 2019): Capacitor Placement Study for Minimizing Power Losses on Transmission System of Bhutan
15. Mr. Matham Kiran Kumar (**Indian**, December 2019): Peak Demand Shaving at the End-Users by using Decentralized Solar-PV Battery Energy Storage Systems
16. Mr. Myo Min Htwe (**Burmese**, December 2019): Optimal Scheduling of Battery Energy Storage Systems of Residential Solar PV System for Reverse Power Flow Mitigation and Peak Load Shaving
17. Mr. Bhargab Jyoti Bharali (**Indian**, December 2019): Valorization of the Producer Gas by Removing Nitrogen Gas in Air Gasification
18. Mr. Nadimpalli Prudhvi Raju (**Indian**, Research Study, May 2019): A Study of Algae as a Source of Jet Fuel
19. Mr. Firuz Ahamed Nahid (**Bangladeshi**, May 2019): Very Short-Term Wind Speed Forecasting Using Convolutional Long Short-Term Memory Neural Network
20. Ms. Tenzin Choden (**Bhutanese**, May 2019): Barriers and Opportunities in Cross-border Electricity Trading for Bhutan
21. Mr. Itthipol Udomkitpaibool (**Thai**, May 2019): Distributed and Autonomous Microgrid System Using Aged Lithium-ion Battery Energy Storage System
22. Ms. Alisha Shrestha (**Nepalese**, May 2019): Simulation for Maximum Hydropower Generation under Climate Change Scenarios for Kulekhani Hydropower Plant, Nepal
23. Mr. Kolluru Venkata Surya Vinay Krishna (**Indian**, Research Study, December 2018): A Study on Energy Use in an Educational Institution Using RETScreen
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35. Mr. Sharang Dev Sharma (**Indian**, ICT, May 2018): Evaluation of Solar Energy Potential and Site Suitability for PV Farms by Using Multi Criteria Decision Support System
36. Mr. Hazrat Mohammad Wahdaty (**Afghani**, ICT, May 2018): ICT based Land suitability modeling for urban development using Remote sensing and GIS: a case study of Kabul city, Afghanistan
37. Ms. Jyotsna (**Indian**, Research Study, May 2018): Success Determinants for Off-Grid Rural Electrification Program
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39. Mr. Naveen Venkatesh Vinod Pampana (**Indian**, Research Study, May 2018): A Study on Biogas Production from Food Waste in Hosur, India
40. Mr. Nilay Kumar Sarker (**Indian**, May 2018): Design and Evaluation of a Microalgae Cultivation System
41. Mr. Phuriphath Samphanthasit (**Thai**, May 2018): Harmonic Analysis of High Penetration of Solar Rooftop Systems in an Unbalanced EV Loading Distribution Network
42. Mr. Tanawat Laopaiboon (**Thai**, May 2018): Short-term Solar Forecasting Using Deep Long Short-Term Memory Recurrent Network Program
43. Mr. Bhavin Pradhan (**Nepalese**, May 2018): Implications of Electric Mobility for Kathmandu Valley on Energy Demand, Greenhouse Gas Emissions and Analysis of Barriers
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45. Mr. Phyto Kyaw (**Burmese**, Research study, December 2017): Dew Point Evaporative Cooling System
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50. Mr. Wahidullah Kharotai (**Afghani**, Research study, May 2017): Barriers and Opportunities for Off-grid Solar Home System in Afghanistan Based on Stakeholders Perception: A SWOT-AHP Analysis
51. Mr. Piriya Paokorkeatikul (**Burmese**, Research study, December 2017): A Study on the Geothermal Energy Utilization in Thailand
52. Mr. Raunak Thapa (**Nepalese**, Research study, December 2017): Policy Effectiveness and Upscaling Challenges: The Case of Renewable Energy Subsidy Policy in Nepal
53. Mr. Hasan Masrur (**Bangladeshi**, Research study, May 2017): A Techno-Economic Feasibility Study of a Microgrid on the Coastal Area of Bangladesh: St. Martin's Island
54. Mr. Pratik Karki (**Nepalese**, December 2017): Barriers and Opportunities in Cross-border Electricity Trading for Nepal: A SWOT-AHP Analysis
55. Mr. Nguyen Phuoc (**Vietnamese**, December 2017): Optimal Day-Ahead Generation Scheduling with Independent Slack Bus Loss Sensitivity in Vietnam's Wholesale Electricity Market
56. Mr. Soeun Sophanith (**Cambodian**, December 2017): Active Power Loss Reduction and Voltage Profile Enhancement in a Radial Distribution System
57. Ms. Rana Shreeya (**Nepalese**, May 2017): The Cost of Electricity Not Served: An Analysis for the industrial Sector in Nepal
58. Mr. Sitav Bhadra (**Indian**, May 2017): Microalgae Based Biodiesel Production Using Coal Thermal Flue Gas and Wastewater in West Bengal: A Techno- Financial Analysis
59. Mr. Danupol Wetchasirikul (**Thai**, May 2017): Wind Speed Forecasting Using Deep Learning Algorithm
60. Ms. Pallavi Das (**Indian**, May 2016): Cost and Reliability Analysis for Off-Grid PV Electrification Options
61. Mr. Nutthapong Sivapraphagorn (**Thai**, Research study, 2016): A Study on the Reduction of Electricity Consumption and Cost in Some Buildings at AIT
62. Ms. Syeda Ismoth Iqbal (**Bangladeshi**, Research study, December 2016): Analysis of Challenges and Opportunities for Green Energy Banking in Bangladesh
63. Mr. Amrit Paudel (**Nepalese**, May 2016): Optimal Scheduling of Active Distribution Network Considering DG Placement, Network Reconfiguration and Electric Vehicles
64. Mr. Wannakorn Supingklad (**Thai**, May 2016): Optimal Power Dispatch Considering Dispatchable Solar and Wind Generation Using Particle Swarm Optimization
65. Mr. Abhishek Pathak (**Indian**, May 2016): Maximizing Energy Generation from Photovoltaic Arrays Through Shading Analysis from Restricted Urban Roof Areas
66. Mr. Sachin Muralee Krishna (**Indian**, May 2016): Economic and Performance Evaluation of Optimal Diesel-Biodiesel-Ethanol Blends (Publication: One international journal)
67. Mr. Masingha Kavinda Randima Wijayawardena (**Sri Lankan**, Research study, May 2018): Analysis of a Hybrid Renewable Microgrid System for Nainativu Island, Sri Lanka
68. Mr. Wais (**Afghani**, May 2016): Energy Consumption from Transport Sector: A Case of Kandahar City
69. Mr. Natthawut Weerarak (**Thai**, December 2015): Energy Consumption and CO2 Emission of Hotel Building in Thailand
70. Mr. Anand M.P. (**Indian**, May 2015): Optimal Day-Ahead Scheduling of a Smart Distribution Network: Considering the Effect of Demand Response, Electric Vehicles and Network Reconfiguration (Publication: Three papers published in international conferences)
71. Mr. Mohammad Nazrul Islam (**Bangladeshi**, May 2015): Online Voltage Stability Assessment Using Local Phasor Measurements
72. Mr. Amam Hossain Bagdadee (**Bangladeshi**, May 2015): Power Quality Improvement of Different Load Models in a Micro-Grid System
73. Ms. Wichayaphorn Phoosap (**Thai**, May 2014): Performance of Parabolic Trough Solar Collector
74. Mr. Thanongsak KaewsaiBuathong (**Thai**, May 2014) : Application of Wattmon for System Design and Performance Improvement of PV Systems

75. Mr. Vinalong Phonekeo (**Laotian**, May 2014): Electric Vehicle as a Transportation Option for Vientiane: Impact on Transport Energy Demand, GHG Emission and Implications for Electricity Planning
76. Ms. Orawan Phochai (**Thai**, 2014): Voltage Control Strategies for Grid-Connected Solar PV Systems
77. Mr. Rung Punyachai (**Thai**, 2014): Impact of High Solar Rooftop PV Penetration on Voltage Profile in a Distribution System
78. Mr. Jukkrapun Prasomthong (**Thai**, 2014): Optimal Placement of Vehicle-to-Grid Charging Station in Distribution System Using Particle Swarm Optimization with Time Varying Acceleration Coefficients
79. Ms. Chanokwan Veerasathian (**Thai**, 2014): Voltage Stability Assessment of DFIG Wind Turbine in Different Control Modes
80. Ms. Anchuleeporn Chersin (**Thai**, 2014): Improvement of Uncertain Power Generation of Rooftop Solar PV Using Battery Storage Energy Management Strategy
81. Ms. Panipak Thipthiangthae (**Thai**, 2014, Research study): Estimating Greenhouse Gas Emission in the Corporate Sector: The Case of AIT, Thailand
82. Mr. Ekawut Chayakul (**Thai**, 2014, Research study): A Study on Street Lighting in the AIT Campus
83. Mr. Asim Ejaz (**Pakistani**, Project, December 2013): Use of an Enterprise GIS for an Electric Distribution Utility Company: Laying the Grounds for Achieving Smart Grid
84. Mr. Muhammad Ramzan (**Pakistani**, Project, December 2013): Impacts of Wind Energy on Coal Based Power Generation Planning of Pakistan
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91. Ms. Rabeel Manzoor (**Pakistani**, Project, December 2013): Software Requirements and Choice of Technology for Automated Billing Systems
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94. Mr. Le Hoang Nam (**Vietnamese**, 2013): Hydro-Thermal Coordination using Pseudo-Gradient Based Particle Swarm Optimization Method Considering Wind Power Uncertainty: A Case of Vietnam
95. Mr. Pok Palpibal (**Thai**, 2013): Multi-Objective Power Distribution System Planning Considering PEVs Using NSPSO
96. Mr. Piyachai Sritunya (**Thai**, 2013): Multi-objective Service Restoration in Distribution System with DG Using NSPSO
97. Mr. Muhammad Ahad Rahman Miah (**Bangladeshi**, 2013): Sustainable Extraction and Usage of Coal in Jamalganj Coal Field, Bangladesh
98. Mr. Wichien Tunyasrivorakul (**Thai**, 2013): Time Series and Panel Data Analysis of Crude Oil Consumption for Indonesia, Malaysia and Thailand
99. Ms. Perada Limloetmongkol (**Thai**, 2013): Panel Cointegration and Causality Analysis on CO₂ Emissions in Selected ASEAN Countries

100. Ms. Prow Choompradit (**Thai**, 2012): Estimating Short and Long Run Time-of-Use Tariff Elasticities for PEA's Customer Demand
101. Mr. Bhawat Traipattanakul (**Thai**, 2012): Technical and Policy Options for Wind Energy Development in Thailand
102. Mr. Thanaset Petchwattananon (**Thai**, 2012): Impacts of Plug-in Hybrid Electric Vehicles on Power Sector Development in Thailand
103. Mr. Taskin Jamal (**Bangladeshi**, 2012): An Approach Towards Smart Distribution Network in Dhaka, Bangladesh by Rooftop Solar PV Using GIS
104. Mr. Sutisil Khedkaw (**Thai**, 2012): Robust Combined-Objective Particle Swarm Optimization for Planning Transition to Plug-in Hybrid Electric Vehicle
105. Mr. Passapong Saneaphunt (**Thai**, 2012): An Empirical Analysis on CO₂ Emissions from the Electricity Sector and Income Based on the Environmental Kuznets Curve
106. Ms. Thanyaporn Harnboonyanon (**Thai**, 2012): Impacts of Electric Vehicle Charging on Distribution Transformers
107. Ms. Pradsamon Rodchuea (**Thai**, 2012): Impacts of AMI Deployment in Thailand: Generation Expansion Model
108. Mr. Tran Truong Han (**Vietnamese**, 2012): Technical and Financial Impact Assessment of a Wind Farm: A Case Study of a Phong Project, Vietnam
109. Mr. Jakkrapun Tessiri (**Thai**, 2012): A Study on Small Scale Applications of Biogas
110. Ms. Shahina Perveen (**Bangladeshi**, 2012, Research study): Comparative Study of Index Decomposition Analysis Approaches for CO₂ Emission Changes: A Case Study in South-East Asian Countries
111. Ms. Chonlapat Leewarinpanich (**Thai**, 2011/12): Monthly Electricity Demand Forecast for Provincial Electricity Authority Using Autoregressive Integrated Moving Average (ARIMA) and Artificial Neural Network (ANN): A Case Study of Chiangmai
112. Mr. Tharakorn Chanlapa (**Thai**, 2011/12): An Assessment of Micro Hydropower for Rural Electrification: A Case Study of Maesa Basin, Thailand
113. Ms. Pun Phullsub (**Thai**, 2011/12): Electricity Consumption during Flooding in Thailand: Case Study in Bangkok, Nonthaburi and Samut Prakan
114. Mr. Peerakit Theerasopon (**Thai**, 2011/12): GHG Mitigation Potential of Clean Coal Technologies and Carbon Capture and Sequestration in Thailand
115. Ms. Klairung Kositthanasaran (**Thai**, 2011/12): Financial Risk Analysis of Biomass Power Plant: A Case study of Sungoen Rice Husk Power Plant in Nakhonratchasima
116. Mr. Warodom Khamphanchai (**Thai**, 2011): A Multi-Agent based Power System Restoration Approach in Distributed Smart Grid
117. Mr. Watchara Jaroenpan (**Thai**, 2011): Multi-Areas Economic Dispatch by Particle Swarm Optimization with Time-Varying Acceleration Coefficients
118. Mr. Pasapong Gamonwet (**Thai**, 2011): Electricity Retail Price in Competitive Market using the Risk Adjusted Capital asset pricing model (CAPM): A Case of Thailand
119. Ms. Pensupa Sattawatananon (**Thai**, 2011): Risk Analysis in Financial Evaluation of Electricity Transmission System Extension Project: A Case Study of Samui Island, Thailand
120. Mr. Hoang Thanh Hai (**Vietnamese**, 2011): Feeder Automation Planning for Hanoi Power Distribution System
121. Mr. Kritsnai Jantawongsri (**Thai**, 2011): Optimal DG Placement in Island Microgrid System by PSO with Time-Varying Acceleration Coefficients
122. Mr. Phoukhong Sinyasone (**Laotian**, 2011): Optimal Capacitor Placement for Voltage Improvement and Loss Reduction in Power Distribution Networks in Lao PDR
123. Ms. Vipasinee Kesornpikul (**Thai**, 2011): Comparison of Harmonic Behavior of Compact Fluorescent Lamp in Thailand
124. Mr. Paveen Suwannawat (**Thai**, 2011): Optimal Scheduling of Combined Heat and Power Units in a Household Islanding Microgrid System
125. Mr. Chakkapong Somsri (**Thai**, 2011): Optimal Distribution Substation Placement, Size and Installation Period by Improved-Binary Particle Swarm Optimization
126. Installation Period by Improved-Binary Particle Swarm Optimization

127. Ms. Su Yin Min (**Burmese**, 2010, Research study): Optimal TCSC Placement for Minimization of Transmission Losses
128. Mr. Bhakbhum Kaewkamthong (**Thai**, 2010, Research study): Fault Identification and Locating on PEA Distribution System
129. Mr. Phan The Hieu (**Vietnamese**, 2010): Distribution Expansion Planning: A Case of Travinh City, Vietnam
130. Mr. Thad Aosombatkun (**Thai**, 2010): An Analysis of Electricity Demand and Pollutant Emissions Using Cointegration and ARIMA Modeling: A Case Study of Thailand
131. Ms. Wikanda Pensupa (**Thai**, 2010): Assessment of Clean Development Mechanism (CDM) Projects for Net GHGs Mitigation in Thailand
132. Mr. Paradorn Sriprasat (**Thai**, 2010): Distribution System Planning Considering Grid Connected Rooftop PV Systems: A Case of Chiang Mai City, Thailand
133. Mr. Sitthigorn Promthaworn (**Thai**, 2010): Reliability Improvement by the Microgrid System: A Case of Mae Hong Son, Thailand
134. Mr. Bancha Rangsakorn (**Thai**, 2010): Multi-Objective Distributed Generation Optimal Placement in Distribution System using Nondominated Sorting Particle Swarm Optimization
135. Mr. Yusak Tanoto (**Indonesian**, 2010): Long Term Peak Load Forecasting Using Artificial Neural Networks: The Case of Java-Madura-Bali Interconnection, Indonesia
136. Mr. Nuttawich Khamsawasd (**Thai**, 2010): Optimal Bidding Strategy in LMP-Based Electricity Market Considering Demand Elasticity by Particle Swarm Optimization with Time-Varying Acceleration Coefficients
137. Mr. Apinat Saksinchai (**Thai**, 2010): Multi-objective Bidding Strategy for Generation Company using Non-Dominated Sorting Particle Swarm Optimization
138. Ms. Cherry Myo Lwin (**Burmese**, 2010): Greenhouse Gas Mitigation by Hydropower Trading from Myanmar to Thailand
139. Ms. Seema Thakur (**Nepalese**, 2010): Optimal Generation Scheduling of Cascaded Hydro-Thermal and Wind Power Generation by Particle Swarm Optimization
140. Ms. Yada Rungreang (**Thai**, 2010): Financial Transmission Right Bidding Strategy in Competitive Power Market Using Particle Swarm Optimization
141. Mr. Nitipong Thipwiang (**Thai**, 2010): Wind Power Bidding Strategy in Short-Term Power Market Based on Particle Swarm Optimization
142. Mr. Mom Kirivathanak (**Thai**, 2010): Optimal DG Placement in a Nodal Price Based Electricity Market: The Case of Cambodia
143. Mr. Dinesh Rangana Gurusinghe (**Sri Lankan**, 2010): Saddle Node Bifurcation and Voltage Stability Analysis by Particle Swarm Optimization
144. Ms. Arisa Sumthong (**Thai**, 2010): Long-term Co2 Emission Reductions Target and Scenario for the Industrial Sector of Thailand
145. Mr. Agapol Pukprayura (**Thai**, 2010): Optimal Under-Voltage Load Shedding for Northeastern EGAT System
146. Mr. Purna Bdr Rai (**Bhutanese**, 2010): Total Transfer Capability Enhancement using FACTS Devices: A Case Study of Bhutan Power System
147. Mr. Arshad Mahmood (**Pakistani**, 2010, Research study): Energy Consumption and Economic Growth in Pakistan: A Causality Analysis
148. Mr. Ngo Dang Chien (**Vietnamese**, 2010): Integrated Resources Planning Considering Demand Side Management: A Case Study of Vietnam
149. Mr. Natthakich Assanee (**Thai**, 2010, Research study): The Transition to a Hydrogen Economy in Thailand
150. Ms. Tran Thi Kieu Ngoc (**Vietnamese**, 2010, Research study): Analysis of a Micro Combined Heat Power as a Clean Development Mechanism Project in Residential Area, Hanoi, Vietnam

Member of Special Study Committee:

1. Ms. Chanatta Chaipakdee (**Thai**, May 2019): An AMI system designed for implementing in MEA areas

2. Mr. Sittinan Muanchaona (**Thai**, May 2019): Technical Issues Concerning in Microgrid Technology
3. Ms. Phusanisa Jaichaiyaphum (**Thai**, May 2019): Solar PV Forecasting in MEA's Area
4. Mr. Puminut Rugthong (**Thai**, May 2019): A Study on Ethanol Production from Sugarcane Bagasse

IV. Research

A. Publications

Publications must be listed with complete citations in the categories indicated below. Include all names of authors in the order in which they appear. List the number of the first page and last page of the paper. If papers are submitted or accepted for publication, copies of the letter of receipt or acceptance must be provided. Manuscripts in preparation should not be listed. Papers of a principally pedagogical nature must be listed in Section II, C.

1. Books and Monographs:

- i) Hassan Qazi Wazhat, Jai Govind Singh, Mehrdad Ghandhari. *Development of Sensitivity Based Indices for Optimal Placement of UPFC to Minimize Load Curtailment Requirements*. XR-EE-ES-2009:006. Master Thesis, KTH, School of Electrical Engineering (EES), Electric Power Systems, Stockholm, Sweden.
- ii) Umair Mahmud Sheikh, Hector Latorre, Jai Govind Singh, Mehrdad Ghandhari. *Analysis of Power System Stability by Using Optimally Located SVC and STATCOM*. XR-EE-ES 2009:010. Master Thesis, KTH, School of Electrical Engineering (EES), Electric Power Systems, Stockholm, Sweden.
- iii) Priyanko Guha Thakurta, Jai Govind Singh, Lennart Soder. *An Approach for Optimal Placement of SVC to Minimize Load Curtailment*. Master Thesis, KTH, School of Electrical Engineering (EES), Electric Power Systems, Stockholm, Sweden.

2. Book Chapters:

- i) Anongpun Man-Im, Weerakorn Ongsakul, **Jai Govind Singh** (2018). Multi-objective Optimal Power Flow of Wind-Thermal Considering Cosr and Emission by Stochastic Weight Trade-off Chaotic Mutation Based NSPSO. Springer Book "**Unconventional Modeling, Simulation and Optimization of Geo Science and Petroleum Engineering**".

3. Refereed journal articles: international, regional, national. For each article, indicate the publisher of the journal and the number of SCOPUS citations.

3.A Summary of journal articles published (e.g. Jan. 2004 – January, 2016)

Published					
Refereed Journals	International	Refereed Journals	Regional	Refereed Journals	National
(28)					

In Progress		
Refereed International Journals	Refereed Regional Journals	Refereed National Journals
10 manuscripts are communicated 3 manuscripts under preparation		

3.B Articles in Refereed **International Journals**

- i) Anongpun Man-Im, Weerakorn Ongsakul, **Jai Govind Singh**, Madhu M. N. (2019). Multi-objective optimal power flow considering wind power cost functions using enhanced PSO with chaotic mutation and stochastic weights. *Electrical Engineering*, 101(3), pp. 699–718, Springer Verlag. (Thomson Reuters IF=1.296)
- ii) Pham Tuan Ngoc and **Jai Govind Singh** (2017). Short Circuit Current Level Reduction in Power System by Optimal Placement of Fault Current Limiter. *International Transactions on Electrical Energy Systems*, 27(12). <https://doi.org/10.1002/etep.2457> (Thomson Reuters IF=1.619)
- iii) Anongpun Man-Im, Weerakorn Ongsakul, **Jai Govind Singh**, Chanwit Boonchuay (2017). Multi-objective Economic Dispatch Considering Wind Power Penetration Using Stochastic Weight Trade-off Chaotic NSPSO. *Electric Power Component and Systems*, 45(14), pp. 1525–1542. (Scopus cited)
- iv) Vivek Mohan, Reshma Suresh, Jai Govind Singh, Weerakorn Ongsakul, Nimal Madhu M (2017). Microgrid Energy Management Combining Sensitivities, Interval and Probabilistic Uncertainties of Renewable Generation and Loads. *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, 7(2), pp. 262 - 270. (Thomson Reuters IF=3.218)
- v) Nikhil Sasidharan, **Jai Govind Singh** (2017). A Novel Single Stage Single Phase Reconfigurable Inverter Topology for a Solar Powered Hybrid AC/DC Home in Smart Grid. *IEEE Transactions on Industrial Electronics*, 64(4), pp 2820-2828. (Thomson Reuters IF=7.05)
- vi) Nikhil Sasidharan, **Jai Govind Singh** (2017). A Resilient DC Community Grid with Real Time Ancillary Services Management. *Sustainable Cities and Society*, 28, pp. 367–386. (Thomson Reuters IF=3.073)
- vii) Vivek Mohan, **Jai Govind Singh**, and Weerakorn Ongsakul (2017). Sortino Ratio Based Portfolio Optimization Considering PHEVs and Renewable Energy in Microgrid Power Market. *IEEE Transactions on Sustainable Energy*, 8(1), pp. 219-229. (Thomson Reuters IF=6.235)
- viii) I Made Wartana, Ni Putu Agustini, Jai Govind Singh (2017). Optimal Integration of the Renewable Energy to the Grid by Considering Small Signal Stability Constraint. *International Journal of Electrical and Computer Engineering (IJECE)*, 7(5), pp. 2329-2337. (SJR=0.280 & SNIP=1.090)
- ix) Subas Ratna Tuladhar, **Jai Govind Singh**, Weerakorn Ongsakul (2016). Multi-Objective Approach for Distribution Network Reconfiguration with Optimal DG Power Factor using NSPSO. *IET Generation, Transmission & Distribution*, 10(12), pp. 2842 - 2851. (Thomson Reuters IF=2.618)
- x) **Jai Govind Singh**, Hassan Wajahat Qazi, and Mehrdad Ghandhari (2016). Load Curtailment Minimization by Optimal Placement of Unified Power Flow Controller. *International Transactions on Electrical Energy Systems*. 26(10), pp. 2272–2284. [doi:10.1002/etep.2209](https://doi.org/10.1002/etep.2209). (Thomson Reuters IF= 1.619)

- xi) Vivek Mohan, **Jai Govind Singh**, Weerakorn Ongsakul and Reshma Suresh M P (2016). Economic and Network Feasible Online Power Management for Renewable Energy Integrated Smart Microgrid with Improved DER Dynamics. *Sustainable Energy, Grids and Networks*, 7(1), pp. 13-24. (SNIP=0.841)
- xii) Vivek Mohan, **Jai Govind Singh**, Weerakorn Ongsakul, Reshma Suresh M P (2016). Performance Enhancement of Online Energy Scheduling in a Radial Utility Distribution Microgrid. *International Journal of Electric Power and Energy Systems*, 79, pp. 98–107. (Thomson Reuters IF =3.610)
- xiii) Nimal Madhu M, Nikhil Sasidharan and **Jai Govind Singh** (2016). A Droop Control Based DC Equivalent Power Flow Method for Low and Medium Voltage Distribution Systems. *Electric Power System Research*, 134, pp. 56–65. (Thomson Reuters IF=2.856)
- xiv) Sachin Muralee Krishna, Nimal Madhu M, Vivek Mohan, Reshma Suresh M P and **Jai Govind Singh** (2015). A Generalized Approach for Enhanced Solar Energy Harvesting Using Stochastic Estimation of Optimum Tilt Angles: A Case Study of Bangkok City. *GREEN - a systemic approach to energy, DE GRUYTER*, 5(1-6), pp. 95-107. (SNIP=0.939, SJR=0.402)
- xv) Vivek Mohan, **Jai Govind Singh**, Weerakorn Ongsakul (2015). An Efficient Two Stage Stochastic Optimal Energy and Reserve Management in a Microgrid. *Applied Energy*, 160, pp. 28–38. (Thomson Reuters IF=7.900)
- xvi) Nikhil Sasidharan, Nimal Madhu M, **Jai Govind Singh** and Weerakorn Ongsakul (2015). An Approach for Efficient Hybrid AC/DC Solar Powered Homegrid System based on Load Characteristics of Home Appliances. *Energy and Buildings*, 108, pp. 23–35. (Thomson Reuters IF=4.457)
- xvii) Somticha Panich and **Jai Govind Singh** (2015). Impact of Plug-in Electric Vehicles on Voltage Unbalance in Distribution Systems. *International Journal of Engineering, Science and Technology*, 7(3), pp. 76-93.
- xviii) Nimal Madhu M, S Nikhil, Anand M.P., **J. G. Singh** (2015). Distributed AC power flow method for AC and AC-DC hybrid autonomous microgrids with droop control. *International Journal of Engineering, Science and Technology*, 7(3), pp. 58-64.
- xix) Jai Govind Singh, Priyanko Guha Thakurta and Lennart Soder (2014). Load Curtailment Minimization by Optimal Placement of SVC. *International Transactions on Electrical Energy Systems*, doi: 10.1002/etep.1990. (Thomson Reuters IF= 1.619)
- xx) I Made Wartana, **Jai Govind Singh**, Weerakorn Ongsakul, and Sasidharan Sreedharan (2013). Optimal Placement of FACTS Controllers for Maximizing System Loadability by PSO. *Int. J. of Power and Energy Conversion*, 4(1), pp. 9 – 33. (Scopus)
- xxi) Sachin K. Jain, S. N. Singh, and **J. G. Singh** (2013). An Adaptive Time-Efficient Technique for Harmonics Estimation of Non-stationary Signals. *IEEE Transactions on Industrial Electronics*, 60(8), pp. 3295-3303. (Thomson Reuters IF=7.900)
- xxii) Sasidharan Sreedharan, Weerakorn Ongsakul, **Jai Govind Singh**, Mahapatra S. S. (2012). Development of PSO based Robust Controller for Maximizing Wind Penetration. *International Journal of Renewable Energy Technology*, 3(1), pp. 58-78.
- xxiii) Sasidharan Sreedharan, Weerakorn Ongsakul, and **J. G. Singh** (2010). Maximization of Instantaneous Penetration using Particle Swarm Optimization. *International Journal of Engineering, Science and Technology*, 2(5), pp. 39-50.
- xxiv) J G Singh, S N Singh and S C Srivastava (2009). Optimal Placement of UPFC based on System Loading Distribution Factors. *Electric Power Components and Systems*, 37(4), pp. 441-463. (Scopus)
- xxv) J G Singh, P Tripathy, S N Singh, S C Srivastava (2009). Development of a Fuzzy Rule Based Generalized Unified Power Flow Controller. *International Transactions*

- on Electrical Energy Systems*, 19(6), pp. 702–717. doi: 10.1002/etep.250 (Thomson Reuters IF=1.619)
- xxvi) J G Singh, S N Singh and S C Srivastava (2007). An Approach for Optimal Placement of Static VAr Compensators based on Reactive Power Spot Price, *IEEE Transactions on Power Systems*, 22(4), pp. 2021-2029. (Thomson Reuters IF=5.255)
- xxvii) J G Singh, S N Singh and S C Srivastava (2006). A Sensitivity Based Approach for Optimal Location of Multi-Converter Unified Power Flow Controller Considering Its Impact on Generation and Wheeling Costs. *International Journal of Energy Technology and Policy*, 4(3), pp. 394 - 409.
- xxviii) J G Singh, S N Singh and V Pant (2004). Modelling of Generalized Unified Power Flow Controller for Suitable Location and Power Flow Controller. *Iranian Journal of Electrical and Computer Engineering*, 3(2), pp. 103-110.

4. Papers in Refereed International Conference Proceedings

- i) Menaka Karki and **Jai Govind Singh** (2018). An Approach to Enhance the Life of Transformer and the Battery of Gridable Vehicles. **5th IEEE Uttar Pradesh Section International Conference**, 2-4 Nov 2018 MMMUT Gorakhpur, UP, India.
- ii) Mukkamalla Srikanth Reddy, **Jai Govind Singh** (2018). Optimal Scheduling of Customers 'Demand based upon Power Availability and its Price in Smart Grid. **5th IEEE Uttar Pradesh Section International Conference**, 2-4 Nov 2018 MMMUT Gorakhpur, UP, India.
- iii) S.M.G. Mostafa and **Jai Govind Singh** (2018). A Probabilistic Approach for Power Loss Minimization in Distribution Systems. *International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)*, 24-26 October 2018, Phuket, Thailand.
- iv) Md. Ariful Islam, Israt Jahan, Md. Jakaria Rahimi, and **Jai Govind Singh** (2018). Performance Analysis of LTE in Rich Multipath and Rural Environments for Wireless Communication in Smart Grid. *International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)*, 24-26 October 2018, Phuket, Thailand.
- v) Shubham Tiwari, Ankit Bhatt, Arjun C. Unni, **Jai Govind Singh**, and Weerakorn Ongsakul (2018). Control of DC Motor using Genetic Algorithm based PID Controller. *International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)*, 24-26 October 2018, Phuket, Thailand.
- vi) Panaya Sudta, Nathakornphong Veerachayapornkul, Weerakorn Ongsakul, Nikhil Sasidharan, and **Jai Govind Singh** (2018). Optimal Placement and Sizing of DG Based on Single Phase Wind Turbine Generator in Distribution System. *International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)*, 24-26 October 2018, Phuket, Thailand.
- vii) Nikhil Sasidharan, **Jai Govind Singh**, Weerakorn Ongsakul (2018). Static ZIP Load Modelling of Microwave Ovens and its Impact on Distribution System. *International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)*, 24-26 October 2018, Phuket, Thailand.
- viii) Raja Nivedha Ramakrishnan Aruswamy, Jai Govind Singh, Weerakorn Ongsakul (2018). PSO based Unit Commitment of a Hybrid Microgrid System. *International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)*, 24-26 October 2018, Phuket, Thailand.
- x) Nimal Madhu, Vivek Mohan and Jai Govind Singh (2018). Risk Adjusted Co-optimization of ATC in High-Low Voltage Interconnected Power System. **2018 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES)**. IIT Madras, Chennai from 18 – 21, December 2018.

- xi) Raja Nivedha Ramakrishnan Aruswamy, Jai Govind Singh, Weerakorn Ongsakul (2018). PSO based Economic Dispatch of a Hybrid Microgrid System. **4th International Conference on Power, Signals, Controls and Computation (EPSCICON 2018)**, 6-10th January 2018, Vidya Academy of Science & Technology, Thrissur, Kerala, India.
- xii) Pornchai Chaweewat, Jai Govind Singh (2017). Effects of high penetration of solar rooftop PV on short-term electricity pricing forecasting by using ANN-ABC hybrid model; case study of South Australia. **1st International Conference on Large-Scale Grid Integration of Renewable Energy in India**, 6 - 8 September, 2017, New Delhi, India.
- xiii) Nachapol Wongwantanee, **Jai Govind Singh** and Bharat Singh Rajpurohit (2016). Load Curtailment Minimization in Intentional Islanded Networks and its Restoration Strategy Considering Voltage Stability Issues. **PEA Conference**, 19-20 December 2016, Thailand.
- xiv) Happy Aprillia, Jai Govind Singh, Ontoseno Penangsang, Adi Soeprijanto (2016). Optimal Placement of Capacitor on Three Phase Radial Distribution System Using Direct Search Algorithm. **IEEE Region 10 Humanitarian Technology Conference (R10-HTC-2016)**, 21-23 December 2016, Agra, India.
- xv) Jai Govind Singh, S N Singh, S C Srivastava (2016). Congestion Management by using FACTS Controller in Power System. **IEEE Region 10 Humanitarian Technology Conference (R10-HTC-2016)**, 21-23 December 2016, Agra, India.
- xvi) Pornchai Chaweewat, Jai Govind Singh, Weerakorn Ongsakul, Anurag K. Srivastava (2016). Economic and Environmental Impact Assessment with Network Reconfiguration in Microgrid by using Artificial Bee Colony. **International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)**, 14-16 September 2016, Bangkok, Thailand.
- xvii) S. M. G. Mostafa, Jai Govind Singh, H. Masrur, Md. Shahid Ullah (2016). A Prospective Model of Bangladesh Electricity Market. **International Conference on Innovations in Science, Engineering and Technology (ICISSET 2016)**, 28-29 October 2016, IIUC, Kumira, Chittagong, Bangladesh.
- xviii) Tristan G. Magallones Jr., Jai Govind Singh and Watcharakorn Pinthurat (2016). Small Signal Stability and Transient Stability Analysis on the Philippine-Sabah Power Interconnection. **International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)**, 14-16 September 2016, Bangkok, Thailand.
- xix) Watcharakorn Pinthurat, Jai Govind Singh and Tristan G. Magallones Jr. (2016). Modeling and Performance Assessment of the Thai National Power Grid Considering Wind Farms Integration. **International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)**, 14-16 September 2016, Bangkok, Thailand.
- xx) Tristan G. Magallones Jr., **Jai Govind Singh** and Watcharakorn Pinthurat (2016). Power Flow and Small Signal Stability Analysis on the Interconnected Three Isolated Philippine Power Grid. **International Conference on Recent Trends in Engineering and Material Sciences, Elsevier Perspective in Science**, 17-19 March, Jaipur, India.
- xxi) Watcharakorn Pinthurat, **Jai Govind Singh** and Tristan G. Magallones Jr. (2016). Assessment of Fault Ride-Through Capability in Thailand Power Grid Interconnection. **International Conference on Recent Trends in Engineering and Material Sciences, Elsevier Perspective in Science**, 17-19 March, Jaipur, India.
- xxii) Vivek Mohan, Nimal Madhu, Jai Govind Singh, Reshma Suresh M P, Arjun C Unni. (2016). Optimal prioritization of reactive power ancillary service utilizing electric vehicles in an autonomous microgrid. **International Conference on Recent Trends in Engineering and Material Sciences, Elsevier Perspective in Science**, 17-19 March, Jaipur, India.

- xxiii) Nimal Madhu, Vivek Mohan, Jai Govind Singh, Reshma Suresh M P, Sreehari G Nair. (2016). Interval effects of different load models on microgrid optimization. *International Conference on Recent Trends in Engineering and Material Sciences, Elsevier Perspective in Science*, 17-19 March, Jaipur, India.
- xxiv) Nimal Madhu M, Nikhil Sasidharan, **Jai Govind Singh** (2015). Droop Control Incorporated Power Flow Method for Distribution and Microgrid Systems. *IEEE PES Innovative Smart Grid Technologies in Asia 2015, Bangkok International Conference*.
- xxv) Anongpun Man-Im, Weerakorn Ongsakul, **Jai Govind Singh**, Chanwit Boonchuay (2015). Multi-objective Optimal Power Flow Using Stochastic Weight Trade-off Chaotic NSPSO. *IEEE PES Innovative Smart Grid Technologies in Asia 2015, Bangkok International Conference*.
- xxvi) Vivek Mohan, Reshma Suresh M P, **Jai Govind Singh**, Weerakorn Ongsakul and Boddeti Kalyan Kumar (2015). Online Optimal Power Management Considering Electric Vehicles, Load Curtailment and Grid Trade in a Microgrid Energy Market. *IEEE PES Innovative Smart Grid Technologies in Asia 2015, Bangkok International Conference*.
- xxvii) Sasidharan Sreedharan, Reza Ghorbani, Saeed Sepasi, Weerakorn Ongsakul and **Jai Govind Singh** (2015). Simultaneous Optimization of Renewable Power at Transmission and Distribution Grid. **International Conference on SMART GRID Technologies, August 6-8, 2015, Amrita School of Engineering, Coimbatore, India.**
- xxviii) Vivek Mohan, **Jai Govind Singh**, Weerakorn Ongsakul, Nikhil Sasidharan (2015). Stochastic Effects of Renewable Energy and Loads on Optimizing Microgrid Market Benefits. *International Conference on SMART GRID Technologies*, August 6-8, 2015, Amrita School of Engineering, Coimbatore, India.
- xxix) Nikhil Sasidharan, Nimal Madhu M, **Jai govind Singh**, Weerakorn Ongaskul (2015). Real Time Active Power Ancillary Service using DC Community Grid with Electric vehicles and Demand Response. *International Conference on SMART GRID Technologies*, August 6-8, 2015, Amrita School of Engineering, Coimbatore, India.
- xxx) Anand M.P, Weerakorn Ongsakul, **Jai Govind Singh**, Sajjad Golshannavaz (2015). Economic operational planning of a Smart distribution network considering demand response, Electric vehicles and Network reconfiguration. *PowerTech Eindhoven 2015 conference, 29 June - 2 July 2015, Netherlands.*
- xxxi) Vivek Mohan, **Jai Govind Singh**, Weerakorn Ongsakul (2015). Online Benefit Optimization in a Liberalized/Free Microgrid Market Model. *IEEE International Conference TAP Energy*, 24-26th June 2015, Amrita Vishwa Vidya Peetham, Amritapuri, Kerala, India.
- xxxii) Anand M.P., Weerakorn Ongsakul, **Jai Govind Singh** and Sudhesh K.M. (2015). Optimal Allocation and Sizing of Distributed Generators in Autonomous Microgrids based on LSF and PSO. *International Conference on Energy, Economics and Environment (1st UPCON-ICEEE2015)*, 27-28 March, 2015, Greater Noida, India.
- xxxiii) Anand M.P., Weerakorn Ongsakul, **Jai Govind Singh Singh** and Sudhesh K.M. (2015). Impact of Economic Dispatch in a Smart Distribution Network considering Demand Response and Power Market. *International Conference on Energy, Economics and Environment (1st UPCON-ICEEE2015)*, 27-28 March, 2015, Greater Noida, India.
- xxxiv) Nikhil Sasidharan and **J. G. Singh** and Sudhin P. K. (2015). Hybrid AC/DC Solar Powered Net Zero Energy Home. *2015 IEEE International Conference on Electrical, Computer and Communication Technologies (IEEE ICECCT 2015)*, SVS College of Engineering, Coimbatore, Tamil Nadu, India, 05 - 07th March 2015.
- xxxv) Taskin Jamal, Weerakorn Ongsakul, Jai Govind Singh, Sayedus Salehin, S.M. Ferdous (2014). Potential Rooftop Distribution Mapping using Geographic

- Information Systems (GIS) for Solar PV Installation: A Case Study for Dhaka, Bangladesh. *3rd International Conference on the Developments in Renewable Energy Technology (ICDRET)*, Dhaka, Bangladesh, May 29-31, 2014.
- xxxvi) Nachapol Wongwantanee, **Jai Govind Singh** and Bharat Singh Rajpurohit (2014). Generation Cost and Loss Power Minimization in Intentional Islanded Networks Based on BPSO. *6th IEEE Power India International Conference*, 5-7 December 2014, New Delhi, India.
- xxxvii) Grewal, G.S.; Rajpurohit, B.S.; **Singh, J.G.** (2014). Energy management in Steel rolling plant. *International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)*, 19-21 March 2014, Pattaya, Thailand.
- xxxviii) Man-Im, A; Ongsakul, W.; **Singh, J.G.** Boonchuay, C. (2014). Multi-objective economic dispatch considering wind generation uncertainty using non-dominated sorting particle swarm optimization. *International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)*, 19-21 March 2014, Pattaya, Thailand.
- xxxix) Tuladhar, S.R.; **Singh, J.G.**; Ongsakul, W. (2014). A multi-objective network reconfiguration of distribution network with solar and wind distributed generation using NSPSO. *International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)*, 19-21 March 2014, Pattaya, Thailand.
- xl) Mohan, V.; Madhu, N.; Ongsakul, W.; **Singh, J.G.**, Reshma Suresh, M.P. (2014). Design of strategic information in the deregulated Indian power market: An agent-based approach. *International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)*, 19-21 March 2014, Pattaya, Thailand.
- xli) Pisanupoj, S.; Ongsakul, W.; **Singh, J.G.** (2014). Potential of smart grid in Thailand: A development of WADE smart grid model. *International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)*, 19-21 March 2014, Pattaya, Thailand.
- xlii) Chaweewat, P.; **Singh, J.G.**; Ongsakul, W.; Srivastava, A.K. (2014). Synchronization control and droop control of microgrid operation. *International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)*, 19-21 March 2014, Pattaya, Thailand.
- xliii) I. M. Wartana, **J. G. Singh**, W. Ongsakul, and N. P. Agustini (2012). Optimal Placement of A Series FACTS Controller in Java-Bali 24-bus Indonesian System for Maximizing System Loadability by Evolutionary Optimization Technique. *Third International Conference on Intelligent System, Modelling and Simulation (ISMS2012)*, Kinabalu-Malaysia, 2012.
- xliv) Maya B, Sasidharan Sreedharan, **J G Singh** (2012). An Integrated Approach for the Voltage Stability Enhancement of Large Wind Integrated Power Systems. *IEEE PES International Conference, Epsicon* 2012, India.
- xlv) Sasidharan Sreedharan, Weerakorn Ongsakul, **Jai Govind Singh**, I Made Wartana and Kittavit Buayai (2011). PSO Based Tuning of FACTS Controllers for Maximizing the Wind Energy Penetration in Power Systems. *IEEE-PES, ISGT International Conference*, Kollam, Kerala India, 2011.
- xlvi) Sasidharan Sreedharan, Weerakorn Ongsakul, **J G Singh** and I Made Wartana (2011). Development of PSO based Control algorithms for maximum wind penetration. *IEEE PES General Meeting*, Detroit, Michigan, USA, 26–29 July, 2011.
- xlvii) D. X. Duc, **Jai Govind Singh**, Weerakorn Ongsakul (2011). Water Valuation in Vietnamese Electricity Generation Market. *International Conference and Utility Exhibition 2011 on Power and Energy Systems: Issues and Prospects for Asia (ICUE 2011)*, 28-30 September, 2011, Pattaya, Thailand.
- xlviii) I Made Wartana, **Jai Govind Singh**, Weerakorn Ongsakul, Kittavit Buayai, and Sasidharan Sreedharan (2011). Optimal Placement of UPFC for Maximizing System Loadability and Minimize Active Power Losses by NSGA-II. *International*

Conference and Utility Exhibition 2011 on Power and Energy Systems: Issues and Prospects for Asia (ICUE 2011), 28-30 September, 2011, Pattaya, Thailand.

- xlix) J. G. Singh, S. N. Singh, S. C. Srivastava, and Lennart Söder (2010). Power System Security Enhancement by Optimal Placement of UPFC. *The Fourth IASTED Asian Conference on Power and Energy Systems, AsiaPES 2010*.
- l) J. G. Singh, S. N. Singh, S. C. Srivastava (2007). Reactive Power Spot Price Based Optimal SVC Placement Considering Opportunity Cost. *International Conference on Power System 2007, CPRI, Bangalore, India, 12-14 December 2007*.
- li) J. G. Singh, S. N. Singh, S. C. Srivastava (2007). Enhancement of Power System Security through Optimal Placement of TCSC and UPFC. *IEEE PES General Meeting*, Florida, USA, 24-28 Jun 2007.
- lii) J. G. Singh, S. N. Singh, S. C. Srivastava (2006). Placement of FACTS Controllers for Enhancement of Power System Loadability. *PES, 2006 IEEE Power India Conference*, New Delhi, April 10-12, pp. 89-96.
- liii) J. G. Singh, S. N. Singh, S. C. Srivastava (2006). Optimal Placement of TCPAR for Enhancement of Power System Loadability. *National conference on Technical Challenge in Power Systems*, KNIT Sultanpur, India, 24-25 March 2006, pp. 207-211.
- liv) J. G. Singh, S. N. Singh, S. C. Srivastava (2006). Optimal Placement of TCSC for Enhancement of Power System Loadability. *National conference on Modern Aspects of FACTS and its application*, MMMEC Gorakhpur, India, 17-18 February 2006, pp. 89-96.
- lv) O. P. Dwivedi, **J. G. Singh** and S. N. Singh (2004). Simulation and Analysis of Multi-converter Unified Power Flow Controller Using SIMULINK. *National Power System Conference*, IIT, Madras, India, 27-30 December, 2004, pp. 1048-1054.
- lvi) O. P. Dwivedi, **J. G. Singh** and S. N. Singh (2004). Power Flow Control Using Multi-Converter FACTS Controller. *International Conference on Power System*, IE, Tribhuvan University, Nepal and IIT Mumbai, India Kathmandu, Nepal, 3-5 November, 2004, pp. 711-718.
- lvii) J. G. Singh, S. N. Singh (2003). Optimal Power Flow Control Using Generalized Unified Power Flow Controller. *National conference on Modern Aspects of FACTS and its application*, Coimbatore, India, 29 & 30 August 2003, pp. 89-96.

5. Papers in Workshops:

- i) J. G. Singh and S. N. Singh. Enhancing Power Systems 'Security Using FACTS Controllers, *National Seminar on Voltage Stability (SVC '06)*, at Arulmigu Kalasalingam College of Engineering, Tamil Nadu, October 13-14, 2006.

6. Development Project Reports

S. Kumar, P. Abdul Salam, C.O.P. Marpaung, J.G. Singh and B. Sireesha: AIT-EHMF Collaborative Project Report on *Micro-Hydro Generation System*. It was submitted to EBARA foundation in November 2012.

7. Non-refereed Publications

- i) Smart Grid: A Vision of Future Energy by Jai Govind Singh and Weerakorn Ongsakul, Technology Magazine, AIT Consulting, 2014.
- ii) Hybrid AC/DC Net Zero Electric Energy Status Solar Home by Nikhil Sasidharan and Jai Govind Singh, Chulachomklao Royal Military Academy (CRMA), 2014, pp. 128-129.
- iii) An eight minutes interview on 'Distributed Power Grids: A Future Energy Systems of Asia 'at link <http://energy.ait.asia/news-a-events/38-news/341--dr-jai-govind-singhinterview-at-asian-utility-week>.

8. Invited Lectures and Keynote Addresses

Invited keynote address/speeches:

- i) Delivered an invited keynote speech on '**An Approach to Minimize the Range Anxiety of Electric Vehicles at Different SoC level of the Battery**' in an International Conference on Smart Energy Systems and Electric Vehicles- ICSESEV-2020, January 8-10, 2020 at V R Siddhartha Engineering College, Vijayawada, Andhra Pradesh, India.
- ii) Invited to deliver an invited keynote speech in an International Conference on Power Electronics & IoT Applications in Renewable Energy and Its Control (PARC 2020), February 28-29, 2020, organized by Department of Electrical Engineering, GLA University, Mathura, India at GLA University, Mathura, India.
- iii) Delivered an invited keynote speech on '**Smart Grid for Green Energy and Transport Sectors**' in an International Conference on "**Sustainable Development**" ICSD – 2019, February 14-15, 2019 at STES', Sinhgad College of Engineering, Vadgaon (Bk), Pune.
- iv) Delivered an invited keynote speech on '**Smart Grid for Green Energy and Transport Sectors**' in an International Conference on "**Sustainable Development**" ICSD – 2019, February 14-15, 2019 at STES', Sinhgad College of Engineering, Vadgaon (Bk), Pune.
- v) Delivered an invited keynote speech on '**Electric Vehicles and Renewable Integration in Smart Grid**' in '**International Conference on Artificial Intelligence, Smart Grid and Smart City Applications**', 4-5, January, 2019, PSG College of Technology, Coimbatore, India.
- vi) Delivered an invited keynote speech on '**Electric Vehicles and Future Prospective**' in '**1st International Conference on Mechanical Innovative and Emerging Trends (MIET)**', Department of Mechanical Engineering, MIET, Meerut, India, 4-5, December, 2018.
- vii) Delivered an invited **keynote speech** on '**Smart Grid and ICT**' in '**International Conference on Emerging Trends in Computing & Communication Technology**', organized by Department of Computer Science & Engineering, Graphic Era Hill University, Dehradun, India, 17-18th November 2017.
- viii) Delivered an invited **keynote speech** on '**Economic and Environmental Assessment of Microgrid: A Case study of Mai Sarieng, Thailand**' in '**International Conference on Control Computing Communication and Materials (ICCCCM-2016)**', organized by United College of Engineering & Research, Allahabad, UP, India, 22nd October 2016.
- ix) Delivered an invited **keynote address** on '**Scope and Challenges of Smart Grid in Renewable Energy Integration**' in '**International Conference on Smart Grid Technology (INCETS'16)**', organized by College of Engineering Trikaripur, Kasaragod, Kerala, India, 23rd April 2016.
- x) Delivered an invited **keynote address** on '**Distributed Power Grids: A Future Energy Systems of Asia**' at International Conference on SMART GRID Technologies, August 6-8, 2015, Amrita School of Engineering, Coimbatore, India.
- xi) Delivered an invited **keynote speech** on '**Smart Grid for Low Carbon Society**' in International Conference on Energy, Economics and Environment, 27-28th March, 2015, Noida, India.

- xii) Delivered an invited **keynote speech** on 'Homegrids to the Smart Grid: A Sustainable Energy Expressway for Green Future 'in 'International Conference on Recent Developments in Control, Automation & Power Engineering (RDCAPE-2015)', 12-13th March, 2015, Noida, India.

Invited expert lectures/talks:

- i) Delivered an invited **expert talk** on 'Load Management in Smart Grid 'in 'Malaviya Research Conclave 2018 (MRC-2018)', organized by MMMUT Gorakhpur, UP, India, 6–8 July 2018.
- ii) Delivered an invited **expert talk** on 'Research Methodology: A Case of AIT's Practice 'in 'Malaviya Research Conclave 2017 (MRC-2018)', organized by MMMUT Gorakhpur, UP, India, 6–8 July 2018.
- iii) Delivered an invited **expert talk** on 'Scope and Challenges of Smart Grid in Renewable Energy Integration 'in 'Malaviya Research Conclave 2017 (MRC-2017)', organized by MMMUT Gorakhpur, UP, India during 9–11 July 2017.
- iv) Delivered two and half day invited lectures on '**Smart Grid** 'in a training program organized by AITE for personnel from Bangladesh Power Utility from 13th to 15th November 2017.
- v) Delivered one day invited lectures on '**Gas Insulated Substations, Substation Automation and SCADA** 'in a training program organized by AITE for personnel from **Power Grid Company of Bangladesh Ltd. (PGCB)** 21st September 2017.
- vi) Delivered an **expert talk** on 'Distributed Power Grids: A Future Energy Systems ' at Asian Utility Week 2015, 9-10 June, Bangkok, Thailand.
- vii) Delivered a talk on '**ICT for Smart Grid** 'in ICUE2014 Pre-Conference Training Workshop on Smart Grid and Renewable Energy, 18th March 2014.
- viii) I have been invited to deliver several lectures on various power system topics in different trainings program organized by AIT Extension.
- ix) An electricity seminar on "An Electrical Infrastructure for Sustainable Development in THAILAND", FRENCH-THAI ELECTRICITY FORUM, 2012, organized by The Trade Commission of French Embassy, Thailand.
- x) Sequential M. Tech. Program of Uttar Pradesh Technical University, Lucknow, UP, India, on "Economic operation and control of power systems".

9. Total number of citations to the faculty member's published work, as shown by SCOPUS.

<u>SCOPUS</u>			<u>Researchgate</u>			<u>Google Scholar</u>		
Citations	h-index	i10-index	Citations	h-index	RG Score	Citations	h-index	i10-index
451	12	11	568	12	22.08	762	14	22

(Scopus link: <http://www.scopus.com/authid/detail.url?authorId=37462123800&origin=cto>)

(Researchgate link: https://www.researchgate.net/profile/Jai_Govind_Singh)

(Google Scholar link: <http://scholar.google.co.th/citations?user=yeX22UYAAA&hl=en>)

B. Research in progress

1. Brief descriptions of current projects

- USAID/EDGE

- Preparing postgraduate curricula in Mastering for Energy Supply for Isolated Areas
- Bangchak's Greennovation activities are going on.
- DST-ASEAN project on Smart Grid and Renewable Energy Integration is being implemented in PSG College of Technology India

2. Brief descriptions of plans for future projects.

- ERASMUS+ call
- ADB call to collaborate with AIT Extension for training programs is under discussion.

C. Research grants and sponsored projects

1. List of research grants and sponsored projects. For each grant and project specify the project duration, overhead and faculty time income to the institute.

Sl. no.	Project Title	Duration	Sponsor	Budget (US\$1=33 THB)	Role
1	Adult Learning Methods for Training, Distance Learning Approaches	Jan 2020 to Dec 2023	USAID/EDGE (in collaboration of Tetra Tech)	US\$125,000	PI
2	Mastering Energy Supply in Isolated Areas	2019-2021	ERASMUS+	3,404,263 THB	Co-PI
3	Smart Solar PV Inverter	2018-2019	BICC@AIT	2,000,000 THB	Co-PI
4	Design and Development of Smart Grid Test Bed for Experimental Verification of Synchrophasor based Algorithms for Wide Area Monitoring, Protection and Control (WAMPAC) for Power Grids with Large Penetration of Renewable Energy Resources	Jan. 2018 to Dec. 2020	DST, India	4.46 Million INR	PI
5	Bangchak Initiative and Innovation Center at AIT	25 th July 2017 to 24 th July 2022	Bangchak Petroleum Company	50,000,000 THB	Co-PI
6	International Conference (ICUE 2108)	October 2017 – March 2019	Registration revenues, sponsorships and grants	1,909,080 THB	PI

7	USAID Clean Power Asia Program	Oct/2016 to Sept/2021	USAID	13.67 Million THB	PI
8	A Project for Sunny Bangchak to Improve the Efficiency of Solar Photovoltaic System	29 Feb – 30 June 2016	Bangchak Solar Energy Company Limited (Sunny Bangchak)	130,625 THB	Co-PI
9	Smart Solar Home Demonstration Project	Sept 1, 2014 – Aug 30, 2015	Industrial Technology Assistance Program (iTap), National Science and Technology Development Agency (NSTDA)	3kW solar panel equipment 500,000 THB	Co-PI
10	Service Providing for Local Arrangement and Meeting Support Services to IEEE PES ISGT 2015	Sept 1, 2014 – May 31, 2016	IEEE PES Thailand Chapter	799,817 THB	Co-PI
11	ICUE 2016 Cogeneration, Small Power Plants and District	Feb 1, 2016 to June 30, 2017	Registration revenues, sponsorships and grants	1,670,000 THB	Co-PI
12	Renewable Powered micro-/mini-grid generation	December 2012 – December 2014	IRENA, Abu Dhabi	241,939 THB	PI
13	Capacity development of the Assam power utilities	October 2012 – December 2013	South Energy Department ADB	294,900 THB	PI
14	Gender inclusive Capacity development	July 2012 - February 2013	South Energy Department ADB	244,285 THB	PI
15	Energy Publications project	January 2014 - December	Subscription, registration etc.	4,185,824 THB	Co-PI

16	AIT GCI Support Electrical Energy	March 2014 – December 2014	ADEME/ France	100,000 THB	PI
19	International Conference (ICUE 2104)	January 2013 – December 2014	Registration revenues, sponsorships and grants	2,210,999 THB	Co-PI
20	PEA-AIT Scholarship 2011	2011-2015	PEA, Thailand	3,548,533 THB	Co-PI
21	Micro-Hydro Solar PV Hybrid System	February 2010 - April 2012	EBARA, Japan	1,786,222 THB	Co-PI

V. Service/Outreach

A. Professional Service

1. Leadership in policy and program development in professional organizations.
Senior Member of *Institution of Electrical and Electronics Engineers (IEEE) Power and Energy System*
2. Participation in organizational responses to policy, practice, or structural issues, which affect the field.
 - i) Member of Advisory Board of 'International Conference on Electrical and Electronics Engineering (ICEEE 2020), '14-15 February 2020 at MMMUT Gorakhpur (UP), India.
 - ii) Member of Technical Program Committee of 'International Conference on Power Electronics & IoT Applications in Renewable Energy and its Control (PARC 2020), '28-29 February, 20120 at GLA University, Mathura, India.
 - iii) Member of Technical/Advisory Program Committee of '4th International Conference on Information Systems & Computer Networks, '21-22 November 2019 at GLA University, Mathura, India.
 - iv) General co-chair of "5th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering UPCON 2018" is jointly organized by Madan Mohan Malaviya University of Technology (MMMUT), Gorakhpur (UP) India & University of Ryukyus, Okinawa, Japan from 2-4 November 2018 in MMMUT, Gorakhpur (UP) India.
 - v) Member of International Advisory Committee of 'International Conference on Artificial Intelligence, Smart Grid and Smart City Applications, '3-5 January 2019 at PSG College of Technology, Coimbatore, Tamil Nadu, India
 - vi) Member of Organizing Committee of '4th IEEE Uttar Pradesh Section International Conference on Electrical, Computer & Electronics '26-28 October 2017 at GLA University Mathura, India.
 - vii) ADB through its energy for All Initiative is invited to the Bali Clean Energy Forum on 11-12 February 2016 and related Global Knowledge Partnership Group Workout meeting on 13 February 2016 to be held in Nusa Dua, Bali, Indonesia.

- viii) ADB invited and I attended 'Global Knowledge Partnership Group Workout for Center of Excellence on Clean Energy Indonesia and beyond 'in Jakarta during 16-18 December 2015.
 - ix) I have attended AIT Retreat meeting held during May 16-18, 2015.
 - x) I have been invited from Murdoch University, South St, Murdoch, Western AUSTRALIA (January 2014) to provide feedback and suggestion to assist in the development of the curriculum frameworks, to provide advice in how best to offer the programs/degrees developed, as well as in related reports and academic papers/publications.
 - xi) I have been invited to participate and deliver an electricity seminar on "An Electrical Infrastructure for Sustainable Development in THAILAND", FRENCH-THAI ELECTRICITY FORUM, 2012, organized by The Trade Commission of French Embassy, Thailand.
 - xii) I have been invited to participate in a panel discussion on Renewable Energy activities of International Renewable Energy Agency (IRENA), Abu Dhabi, UAE in a workshop of 'Indo-ASEAN cooperation in Renewable Energy 'organized by India in New Delhi from 5-6th November 2012. Moreover, this workshop's outcomes were presented to ASEAN-India Ministerial Meeting on Renewable Energy on 7th November for cooperation on renewable energy.
 - xiii) I have delivered several talks to personnel of power utilities of India, Pakistan, Bangladesh, and African countries.
3. Organization of training courses, conferences, seminars, and workshops.
- i) Director of the "**International Conference and Utility Exhibition on: Green Energy for Sustainable Development (ICUE 2018)**", 24-26 October 2018, Phuket, Thailand.
 - ii) Organized a training program on '**Pre-Conference Training Workshop on Smart Grid and Renewable Energy** 'on 18th March 2014, Pattaya, Thailand.
 - iii) Organized a training program on '**Capacity Development Program on New Trends in Power Transmission Planning, Operation and Maintenance in Assam, India** 'during 3 - 7th December 2012, AIT, Bangkok, Thailand sponsored by Energy Division, South Asia Department, ADB.
 - iv) Organized a training program on '**New Trends in Power Distribution Planning and Loss Reduction Strategies for Rural Areas of Assam** 'during 26 - 30th November 2012, AIT, Bangkok, Thailand sponsored by Energy Division, South Asia Department, ADB.
 - v) Organized a training program on '**Power Distribution Planning and Loss Reduction Strategies for Rural Areas of Madhya Pradesh, India** 'during 20 - 24th August 2012, AIT, Bangkok, Thailand sponsored by Energy Division, South Asia Department, ADB.
 - vi) Member of the technical organizing committee of the "International Conference and Utility Exhibition on: Green Energy for Sustainable Development (ICUE 2014)", 19-21 March 2014, Pattaya, Thailand.
 - vii) Member of the technical organizing committee of the "2nd AIT-PEA International Conference and Utility Exhibition on Power and Energy Systems: Issues and Prospects for Asia (ICUE 2011)", 28-30 September 2011, Pattaya city, Thailand.
 - viii) Member of the technical organizing committee of the "International Conference on Sustainable Energy Development: Issues and Strategy", 2-4 June 2010, Chiang Mai, Thailand.

4. Editing or serving on advisory boards of journals
 - i) Reviewer of several international journals, e.g.
 - a) Institute of Electrical and Electronic Engineers (IEEE)
 - b) Institution of Engineering and Technology (IET)
 - c) Electric Power Component and Systems (EPCS)
 - d) Electric Power System Research (Elsevier)
 - e) Springer
 - f) Inderscience

5. Government or international organization panels, expert witness, reports to government or international agencies
 - i) I have been invited and attended as an expert of Focus Group on 'Developing the full analytic potential from your Smart Grid program to accelerate innovation and operational excellence 'lead by **SAS Software (Thailand)** in Asian Utility Week 2015, 9-10 June, Bangkok.
 - ii) A peer reviewed study report on 'Rural electrification using renewable-powered micro/mini grid system: A scenario of Thailand' and prepared by Jai Govind Singh and, P. Abdul Salam was submitted to **IRENA, Abu Dhabi** in 2014.
 - iii) A peer reviewed study report on 'Micro-grids in rural areas: Case Study of Indonesia 'and prepared by Maxensius Tri Sambodo, Jai Govind Singh and, P. Abdul Salam was submitted to **IRENA, Abu Dhabi** in 2014.
 - iv) A peer reviewed study report on 'Expanding Energy Access through Renewable Energy based Mini/Micro Grids Lessons from India 'and prepared by Rohit Kansal, Jai Govind Singh and, P. Abdul Salam was submitted to **IRENA, Abu Dhabi** in 2014.
 - v) A peer reviewed study report on 'Renewable-powered micro/mini-grid systems: Philippine Experience 'and prepared by Rene Barruela, Jai Govind Singh and, P. Abdul Salam was submitted to **IRENA, Abu Dhabi** in 2014.
 - vi) I was involved in a panel discussion on **Renewable Energy activities of International Renewable Energy Agency (IRENA), Abu Dhabi, UAE** in a workshop of 'Indo-ASEAN cooperation in Renewable Energy 'organized by India in New Delhi from 5-6th November 2012. Moreover, this workshop's outcomes were presented to ASEAN–India Ministerial Meeting on Renewable Energy on 7th November for cooperation on renewable energy.
 - vii) Participated in a Field trip organized by 'International Renewable Energy Agency, Abu Dhabi 'in India during November 2012. The objective of field trip was to study the 'renewable-powered micro/mini grid system 'for rural electrification and formulate issues papers for the developing countries.

6. Participation in development projects
 - i) I am involved in a project "3 kW solar PV installation and testing" at AIT in partnership of NSTDA and IHEM Thailand.
 - ii) I worked in implementation of online electrical energy footprint monitoring in Energy buildings under project 'AIT GCI SUPPORT ELECTRICAL ENERGY'.
 - iii) I was involved in a project "Micro Hydro and PV Hybrid Generation System" implementation at AIT in partnership of EBARA foundation, Japan.

B. Significant Institute Committee Service (Indicate the period of service)

1. Department/Program

- i) Member of recruitment panel for Lab Technician in Energy (August 2019).
- ii) Member of recruitment panel for Program Officer in EECC (2019).
- iii) Member of recruitment panel for Lab Technician in Energy (December 2018).
- iv) Member of promotional committee (November – December 2018).
- v) Member of recruitment panel for Lab Supervisor in EEM (November 2017).
- vi) Member of recruitment panel for Program Officer in CCSD (May – June 2017).
- vii) Member and Coordinator of the selection committee for the Energy FoS administrative secretary recruitment (December 2013-March 2014).
- viii) Member and Coordinator of the selection committee for the Energy FoS administrative secretary recruitment (March 2014-July 2014).
- ix) Member and Coordinator of the selection committee for the Energy FoS administrative lab technician recruitment (2014).
- x) Member of the selection committee for the PEA scholarship recipients (2010-2012).
- xi) Member of the selection committee for the Energy FoS faculty recruitment (2011).
- xii) Member of the selection committee for the Energy FoS Laboratory supervisor (2010).

2. School

- i) SERD Faculty representative in the recruitment committee for the technician in SERD office (November 2016-December 2016).
- ii) Member, Task Force for Development of Master Program on Energy and Environment, 2015.
- iii) Member of the selection committee for the AARM FoS administrative secretary recruitment (November 2014-January 2015).
- iv) Member, School Academic Matter Committee (SAMC), 2014-2015.
- v) Member of the joint program development on Energy Business Management (EBM) with SOM, 2012.
- vi) Member of SERD Undergraduate Task Force (UG Task Force) in 2010.

3. Institute

- i) Member of Academic Development Review Committee (ADRC) (2019 – 2020)
- ii) Chair of AIT Library Committee (November 2018 – October 2020).
- iii) Member of AIT Library Committee (July 2018 – June 2020).
- iv) Member, Under Graduate Program and Review Committee (UGPRC) (November 2016 – 2019)
- v) Member, Doctoral Program and Review Committee (DPRC) (September 2012 – December 2014)
- vi) Member of Standing Committee on Management of Assets and Facilities (SCOMAF) constituted by AIT President with ToR to review current AIT-Sodexo scope and propose, implement and monitor new structure to manage AIT assets and facilities from July 2014.
- vii) Member of Bid Evaluation Committee on Technical Maintenance Outsourcing Project constituted by AIT President with ToR to analyze and recommend suitable bid for technical maintenance, April 2014.
- viii) Member of Bid evaluation committee for ARUC approved project, viz., “Main Distribution Board at Substation No.14”, 2013.
- ix) Member of Task Force constituted by VPA for proposing revised/new electricity tariff for AIT residents, 2013.

- x) Member of Bid evaluation committee for ARUC approved project, viz., “Main Distribution Board at Substation No.14”, 2013.
- xi) Member of Bid evaluation committee for ARUC approved project, viz., “Distribution Board at SV3 Area”, 2013.
- xii) Member of selection committee of Energy faculty recruitment, 2011.
- xiii) Member of Research Infrastructure Task Force committee during 2011.

C. Administrative Service (Indicate the period of service)

1. Academic Program

- i) Chair of Energy Academic Program from January 2019 to December 2020.
- ii) Coordinator of Energy FoS from November 2013 to December 2015.
- iii) Coordinator of MBA in Energy Business program from November 2013 to December 2015.
- iv) Director of Regional Energy Resources Information Centre, AIT from November 2013 to December 2015.
- v) Acting FoS coordinator several times for short periods.

D. Community Service

1. Serving on program committees

- ii) General co-chair (10th Feb to 4th November 2018), 5th **IEEE** Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (**UPCON-2018**), jointly organized by MMMMUT Gorakhpur India and University of Ryukyus Okinawa, Japan, during 2–4 November 2018 in MMMUT Gorakhpur India.
- iii) Member, International Advisory Committee of International Conference on Computing, Communication and Security, December 4-5, 2015, Pamplemousses, Mauritius.
- iv) Member, Advisory Committee of International Conference on Creativity & Innovations in Technology Development, 1-2nd April, 2015.
- v) Member, Advisory Committee of International Conference on Energy, Economics and Environment, 27-28th March, 2015.
- vi) Member, International Program Committee for 2nd International Conference on Green Energy and Technology (ICGET) 5~6 September, 2014, Dhaka, Bangladesh.
- vii) Member of SERD Under Graduate Task Force during 2010 (UG Task Force).
- viii) Member of India Task Force.
- ix) Member of Research Infrastructure Task Force committee during 2011.

2. Serving as external examiner

- i) Ms. Neethu Mohan’s PhD Thesis on ‘Parameter Estimation and Forecasting Methods for Emerging Power Grids Using Data-Adaptive Techniques’ from Amrita School of Engineering, **Amrita Vishwa Vidyapeetham, Coimbatore, Tamil Nadu, India**, 2019.
- ii) Mr Taskin Jamal’s PhD Thesis on ‘An Innovative Planning Approach to Improve PV Integration into Remote Electricity Networks’ from **Murdoch University, Australia**, 2018/2019.
- iii) Ms. Mandadi Kalyani’s PhD Thesis on ‘Measured Signal Based Identification of Inter-Area Oscillations for Generator Coherency and Controlled Islanding in Power Systems’ from **Indian Institute of Technology Madras, India**, 2018.

- iv) Mr. Hemang S Pandya's PhD thesis entitled 'Optimized Microgrid Demand Response Management in Smart Grid Paradigm 'from **Sardar Vallabhbhai National Institute of Technology, Surat, Gujarat, India**, 2017.
- v) Mr. Satyendra Singh's PhD thesis entitled 'Optimal Power Flow Using Artificial Intelligence Techniques Incorporating FACTS Devices 'from **Dr. APJ Abdul Kalam University, UP, India**, 2017.
- vi) Mr. Shabbiruddin's PhD thesis entitled 'An Exploratory Analysis of Planning and Operation for Power Distribution System 'from **Sikkim Manipal University, India**, 2017.
- vii) Mr. Sachin Tiwari's PhD thesis entitled 'Series Compensation of Self Excited Induction Generator for Distributed Power Generation 'from **Maulana Azad National Institute of Technology, Bhopal, MP, India**, 2016.
- viii) Ms. Pallavee Bhatnagar's PhD thesis entitled 'Linear Current Controlled Maximum Power Point Tracking using DSP Controller 'from **Maulana Azad National Institute of Technology, Bhopal, MP, India**, 2015.
- ix) Mr. S.B. Karajgi's PhD thesis entitled 'PV & MSW as Distributed Generation Resources: Modeling, Analysis & Benefit Quantification 'from **National Institute of Technology Surathkal, Mangalore, Karnataka, India**, 2013.
- x) Ms. Smita Srivastava's PhD thesis entitled 'Development of Improved Islanding Detection Schemes in Distributed Generation Environment 'from **MANIT, Bhopal, India**, 2012.
- xi) Mr. Anwar Ahmed Ansari's PhD entitled 'Optimization of Asynchronous Machine Performance Using Fuzzy Voltage Controller 'from **MANIT, Bhopal, India**, 2012.
- xii) Ms. Shafali Jain's PhD thesis entitled 'Productivity and Efficiency Analysis of Electricity Generating Companies in Emerging Indian Scenario 'from **MANIT, Bhopal, India**, 2012.

DATE: _____ 27th December 2019 _____
Day / Month / Year