Curriculum Vitae

Dr. Ankur Singh Rana has received B.Tech. degree in Electrical and Electronics Engineering from GGSIP University, New Delhi in 2010. M. Tech in Electrical Power System and Management and Ph.D. from Jamia Millia Islamia (A central University) in 2013 and 2018 respectively. He has served as Post-Doctoral fellow in the Department of Electrical and Electronics Engineering (EEE), National Institute of Technology Tiruchirappalli (NITT). Currently, he is associated as an Assistant Professor with the Department of EEE, NITT, Tamil Nadu since March



2020. His research interests include Wide Area Measurement System, SCADA, Power System Protection, Power System Reliability, PMU and Smart Grids, Application of Power system in Microgrid.

1. Name Ankur Singh Rana

2. Designation: Assistant Professor

3. Office Address: Department of Electrical and Electronics

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National Institute of technology,

Tiruchirappalli,

Tamil Nadu, India

4. Telephone (Direct) (Optional):

Telephone: Extn (Optional): 4088

Mobile (Optional): +91-9910478111

5. Email (Primary): ankur@nitt.edu Email (Secondary):

ankurranag@gmail.com

6. Field(s) of Specialization: Power System Applications in Microgrid

Microgrid Protection

Wide Area Measurement System, PMUs

Power System Reliability Power System Protection,

Smart Grid Communication

Technologies

7. Employment Profile

Job Title	Employer	From	То
Post Doctoral Fellow	National Institute of Technology- Tiruchirappalli	Dec 2019	Feb 2020

Assistant Professor	National Institute of Technology-	Mar 2020	Till date
	Tiruchirappalli		

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

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D.	Jamia Millia Islamia University (Central University), New Delhi	2018		
Master of Technology	Jamia Millia Islamia University (Central University), New Delhi	2013	9.67/10	Electrical Power Systems Management
Bachelor of Technology	Maharaja Surajmal Institute of Technology, New Delhi	2010	72.5%	Electrical and Electronics Engineering,

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	То

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	То

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2015	Best paper award	IEEE Conference INDICON

12. Fellowships

Year of Award	Name of the Fellowship	Awarding	From	To
		Organization	(Month/Year)	(Month/Year)

13. Details of Academic Work

- (i) Curriculum Development
- (ii) Courses taught at Postgraduate and Undergraduate levels –
 Subjects: Microprocessor and Microcontroller; Power Generation System;
 Integrated Circuits and Applied Instrumentation; Distribution System Automation;
 Alternate Sources of Energy; Power System Automation; Dynamics of Electrical Machines

Laboratory handled: Power Systems Lab; Network Theory Lab; Advanced Power Systems Lab; SCADA Lab; DC Machines and transformer Lab; Synchronous and Induction Machines Lab; Electronics and Circuits Lab; Microcomputing and VLSI Design Lab; Simulation Tools for Electrical Engineering Lab; Power System Automation Lab; Seminar/Colloquium

- (iii) Projects guided at Postgraduate level 04
- (iv) Other contribution(s)

14. Details of Major R&D Projects

Title of Ducinet	Eundina Acanar	Duration		Status
Title of Project	Funding Agency	From	То	Ongoing/ Completed

15. Number of PhDs guided

Name of the PhD	Title of PhD	Role(Supervisor/ Co-	Year of
Scholar	Thesis	Supervisor)	Award

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

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

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

Title of Activity	Level of Event	Date (s)	Role	Venue
	(International/			
	National/Local)			
"Modelling and	National	12 th to	Coordinator	Virtual
Simulation Tools in		16 th		
Electrical Engineering		April		
(Level-1)		2021		
Modern Power System	National	3 rd -7 th	Coordinator	Virtual
Optimization:		May		
Techniques, Tools, and		2021		
Applications				
(MPSOTTA)				

18. Invited Talks delivered

Topic	Date	Inviting Organization

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
IEEE Member	IEEE	93392834

20. Academic Foreign Visits

Country	Duration of Visit	Programme

21. Publications

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
Ankur Singh Rana, Jnaneswar K, Mouna Krishna, Neeraj	Design and Implementation of Low-Cost PMU for Off- Nominal Frequency and	Distributed Generation & Alternative Energy Journal			2022	
Kumar, Shufali Ashraf Wani, Mini S Thomas	DDC in Compliance with IEEE C37.118 Standard					
Ankur Singh Rana, B Bhavani Bhagyasree, Harini T.M, Sreenu Sreekumar, More Raju	Optimisation of Economic and Environmental Dispatch of Power System with and without Renewable Energy Sources	Distributed Generation & Alternative Energy Journal			2022	
Sreenu Sreekumar, Sumanth Yamujala, Kailash Chand Sharma, Rohit bhakar, Sishaj P Simon,	Flexible Ramp Product; Net Load Forecasting; Net Load Uncertainty; Power system flexibility; Renewable integration;	Renewable and Sustainable Energy Reviews (Accepted).			2022	

A 1	W:		1			
Ankur	Wind and Solar					
Singh Rana	generation					
Shufali	Advances in	Renewable	149	111347	2021	
Ashraf	DGA based	and				
Wani,	condition	Sustainable				
Ankur	monitoring of	Energy				
Singh Rana,	transformers: A	Reviews				
Shiraz	review					
Sohail,						
Obaidur						
Rahman,						
Shaheen						
Parveen,						
and Shakeb						
A. Khan						
Ankur	A Hybrid	IET	13	4778-	2019	
= -	Methodology to	Generation,	13	4778-	2017	
Singh Rana,	•			4/0/		
Fahad Iqbal,	Analyse Reliability and	Transmission &				
AS	Reliability and					
Siddique,	Techno-	Distribution				
Mini S.	Economic					
Thomas	Evaluation of					
	Microgrid					
	Configurations					
Ankur	Reliability	IET	11	2930-	2017	
Singh Rana,	Evaluation of	Generation,		2937		
Mini S.	WAMS using	Transmission				
Thomas,	Markov Based	&				
Nilanjan	Graph Theory	Distribution				
Senroy	Approach					
Ankur	Communication	Australian	13	220-228	2016	
Singh Rana,	Latency	Journal of				
Mini S.	Reduction In	Electrical				
Thomas,	Wide Area	and				
Nilanjan	Measurement	Electronics				
Senroy	Control And	Engineering,				
	Protection	,				
	110000000000000000000000000000000000000	Taylor and				
		Francis				
Fahad Iqbal,	Power Systems	Smart	6	80-93	2018	
Anwar	Reliability- A	Science;			2010	
Shahzad	Bibliographical	Taylor and				
Siddiqui,	Survey	Francis				
	Burvey	Tancis				
Tanmoy						
Deb, Mohd						
Tauseef						
Khan,						
Ankur						
Singh Rana						

Mohammad	Techno-	Journal of	5	653-6623	2018	
Usman,	Economic	Electrical				
Mohd	Analysis of	Systems and				
Tauseef	Hybrid Solar-	Information				
Khan,	Diesel- Grid	Technology,				
Ankur	Connected	Elsevier				
Singh Rana,	Power	Publishers				
Sarwar Ali	Generation					
	System					
Shahzad	Design and	Perspectives	8	642-644	2016	
Ahsan,	Cost Analysis	in Science				
Kashif	of 1 kW	(Elsevier				
Javed,	Photovoltaic	Publishers)				
Ankur	System Based					
Singh Rana,	on Actual					
Mohammad	Performance in					
Zeeshan	Indian Scenario					
Mohit	"Harmonics and	Smart	6	319-3293	2018	
Bajaj,	Reactive Power	Science;				
Ankur	Compensation	Taylor and				
Singh Rana	of Three Phase	Francis				
	Induction Motor					
	Drive by					
	Photovoltaic					
	based					
	DSTATCOM					

$(B) \ \underline{Conferences/Workshops/Symposia} \ \underline{Proceedings}$

Author(s)	Title of	Title of the	Page	Conference	Venue	Year
	Abstract/ Paper	Proceedings	numbers	Theme		
Ankur	Estimation of	Internet of	139-157			2021
Singh	Fault Location	Energy				
Rana,	Using Cyber-	Handbook				
Shufali	Physical					
Ashraf	System in					
Wani,	WAMCP					
Nisha						
Parveen,						
and Mini						
Shaji						
Thomas						
Ankur	Optimal power	Advanced				2019
Singh	flow solution in	Communication				
Rana,	smart grid	and Control				
Mohit	environment	Methods for				
Bajaj,	using SVC and	Future				
	TCSC	Smartgrids				

Shrija					
Gairola					
Fahad Iqbal, Ankur Singh Rana,	Design and Analysis of a Cost Effective Standalone Solar – Diesel	Handbook of Research on Power and Energy System Optimization	552-570		2018
Shufali Ashraf Wani	Hybrid Power System	Optimization			
Ankur Singh Rana, Nisha Parveen, S. Afroz Ali and Mini S. Thomas	Power system protection enhancement using synchronized measurements	Emerging Trends in Electrical and Electronics Engineering	53-61	New Delhi	2015
Syed Afroz Ali, Ankur Singh Rana, Nisha Parveen and Mini S. Thomas	Practical implementation of IEC 61850 based substation	Emerging Trends in Electrical and Electronics Engineering	329-338	New Delhi	2015
Prakhar Srivastava, Mohit Bajaj and Ankur Singh Rana	Overview of ESP8266 Wi-Fi module based Smart Irrigation System using IOT	Fourth International Conference on Advances in Electrical, Electronics, Information, Communication and Bio- Informatics (AEEICB)	1-5	Chennai	2018
Prakhar Srivastava, Mohit Bajaj and Ankur Singh Rana	IOT based controlling of hybrid energy system using ESP8266	IEEMA Engineer Infinite Conference (eTechNxT)	1-5	New Delhi	2018
Mohit Bajaj, Ankur Singh Rana,	An Improved SRF based Control Algorithm for D-STATCOM under Abnormal Source Voltage	3rd IEEE Nanotechnology for Instrumentation and Measurement	1-6	New Delhi	2016

Nisha	A Practical	1st IEEE	1-5	Delhi	2016
Parveen,	approach for	International		Beim	2010
Ankur	locating faults	Conference on			
Singh	for overhead	Power			
Rana, and	transmission	Electronics,			
Mini S.					
Thomas	lines using	Intelligent Control and			
Homas	synchronized measurements				
		Energy			
	from PMUs	Systems			
		(ICPEICES			
A1	Wide Area	2016)	1-5	Delhi	2015
Ankur	Wide Area	12th IEEE	1-3	Deini	2015
Singh	Measurement	India			
Rana, Mini	system	International			
S. Thomas,	performance	Conference			
Nilanjan	based on	(INDICON-			
Senroy	latency and link	2015)			
	utilization	101 7777	1.5		2017
Ankur	Exploring IEEE	12th IEEE	1-6	New	2015
Singh	standard for	India		Delhi	
Rana,	synchrophasor	International			
Nisha	C37.118 with	Conference			
Parveen,	practical	(INDICON-			
Shaziya	implementation	2015)			
Rasheed,					
and Mini					
S. Thomas,					
Syed Afroz	Improving the	12th IEEE	1-6	New	2015
Ali, Mini S	performance	India		Delhi	
Thomas,	and reliability	International			
Ankur	of IEC 61850	Conference			
Singh Rana	based	(INDICON-			
	substation	2015)			
	using backup				
	IED concept				
Mohit	An Improved	12th IEEE	1-6	New	2015
Bajaj,	SRF based	India		Delhi	
Mukesh	Control	International			
Pushkarna,	Algorithm for	Conference			
Ankur	D-STATCOM	(INDICON-			
Singh	under	2015)			
Rana,	Abnormal				
Mohd	Source Voltage				
Tauseef					
Khan					
Mohit	A Modified	12th IEEE	1-6	New	2015
Bajaj,	Algorithm for	India		Delhi	
Mukesh	Time Varying	International			
Pushkarna,	Reactive Power	Conference			
Ankur	Control and				

Singh	Harmonics	(INDICON-			
Rana,	Compensation	2015)			
Mohd	by D-				
Tauseef	STATCOM				
Khan					
Mini S.	Analysis of	IEEE	1-6	New	2014
Thomas,	Time Delay in	International		Delhi	
Nilanjan	a Wide-Area	conference			
Senroy,	Communication	(PIICon)			
Ankur	Network				
Singh Rana					

(C) Books & Monographs

Author(s)	Title of Book/Monograph	Name of Publishers	Year of Publication	ISSN/ISBN Number