

## BIO – DATA

1. Name of Candidate : **DR. ASHOK KUMAR AKELLA**
2. Father's Name : Late Nanhak Singh
3. Date of Birth : 15 – 12 – 1958
4. Nationality : Indian

5(a) Permanent address: **Dr. Ashok Kumar Akella**  
**S/O Late Nanhak Singh**  
**Village - Harinager**  
**P.O. – Salarpur**  
**Distt. – Patna, State -Bihar**  
**PIN Code- 801305**

And

**Dr. ASHOK KUMAR AKELLA**  
**Flat. No. 211B, Aditya Syndicate,**  
**Near Sahara Garden City,**  
**Adityapur-2**  
**PIN Code:831014**

- 5(b) Present address : **Dr. Ashok Kumar Akella**  
**Associate Professor**  
**Electrical Engineering Department**  
**N.I.T. Jamshedpur,**  
**Jharkhand State - 831014**  
**E-mail: [akakella895@gmail.com](mailto:akakella895@gmail.com)**  
**E-mail: [akakella@rediffmail.com](mailto:akakella@rediffmail.com)**



### 6. Educational Qualification:

Examination	Board/University	Year of Passing	Division/ Class	%age of Marks Obtained
Matriculation	B.S.E.E.B. Patna	1975	2 <sup>nd</sup> Division	43.3
I. Sc.	Magadh University, Bodh Gaya	1977	2 <sup>nd</sup> Division	54.2
B. Sc. (Engg.) (Electrical Engg.)	Bihar University, Muzaffarpur	1987	1 <sup>st</sup> Class	68.0
M. Tech. (Control System Engg.)	Bihar University, Muzaffarpur	1991	C.G.P.A. 7.81/10	78.1
Ph. D.	I.I.T., Roorkee	2006	C.G.P.A 8	80

7. **Honors:** (Membership of Professional Bodies)

- (i) Life Member, Indian Society for Technical Education.
- (ii) Member, T.C.C. Society Ltd., N.I.T. Jamshedpur

8. **Professional Experience:**

Name of the Institutions	Nature of Post	Period	
		From	To
M. I.T., Muzaffarpur	Part Time Lecturer	20-01-1988	to 25-03-1996
N.I.T., Jamshedpur	Lecturer to Lecturer (Sr. Scale) w.e.f. 26.03.2001	26-03-1996	to 25-03-2001
N.I.T., Jamshedpur	Lecturer (Senior Scale to Lecturer (Selection Grade) w.e.f 26.03.2006	26.03.2001	to 15.05.2006
N.I.T. Jamshedpur	Lecturer (Selection Grade) to Assistant Professor w.e.f 16.05.2006 and Re designated as Associate Professor w.e.f 26.03.2009	16.05.2006	to Till date

9. **Project/ Dissertation/ Thesis Supervision: B. Tech. / M. Tech.**

Level	No. & Title of Project / Dissertation / Thesis	Name of other Supervisor (if any)	Remarks* Completed/ On going
B. Tech.	<b>13 Nos. Project</b> i) Study on Control and Performance Evaluation of Clutch Servo System with Hydraulic System	NIL	Completed

	<p>ii)Modelling and Dynamic Simulation of Speed Control System of Separately Excited DC Motor</p>	NIL	Completed
	<p>iii) Power Factor Improvement of Transmission and Distribution in Power System</p>		Completed
	<p>iv) Modelling of Solar and Geothermal Hybrid Energy System</p>	NIL	Completed
	<p>v)Electrical Power Distribution in a remote area through Renewable Energy Sources</p>		Completed
	<p>vi) PFC implementing DC/DC Conversion Technique into AC/AC Converter</p>		Completed
	<p>vii) Wind as a Renewable Source of Energy</p>		Completed
	<p>viii) Modelling of Wind Energy Generation and its Utilization</p>		Completed
	<p>ix) Modelling and Simulation of Wind Energy conversion System for a Variable Speed Wind Turbine</p>		Completed
	<p>x) Generation of Power Using Tidal Sources</p>		Completed
	<p>xi) Protection of Electrical Equipment in Various Sections of TATA Steel Plant</p>		Completed
	<p>xii) Controllability and Observability Analysis of Control Systems</p>		Completed
	<p>xiii) Modelling of Hybrid Power Generation Using Solar and Wind Energy System</p>		Completed

M. Tech.	<b>15 Nos. Dissertation</b>	NIL	Completed
	i) Gulla Rakesh (06/05)		Yr 2007
	ii) Devesh Kumar(18/05)		Yr 2007
	iii) M.S.K.C.J. Nehru(07/01)		Yr 2008
	iv) Rashmi (10/01)		Yr 2008
	v) R. Nagesh (04/07)		Yr 2009
	vi) Sumant Kumar (01/Elect./PS/2002)		Yr 2009
	vii) Bijay Kumar (06/08)		Yr 2009
	viii) Deepak Kumar Lal (03/08)		Yr 2010
	ix) Sharad Chaudhary (13/11)		Yr 2013
	x) Shyamsundar (17/12)		Yr 2014
	xi) Anupam Jain (02/13)		Yr 2015
	xii) Amit Anand (02/14)		Yr 2016
	xiii) Shivendra Singh (11/218)		Yr 2020
	xiv) CH Sekhar (2019PGEEPE18)		Yr 2021
	xv) Rajesh Kumar (2019PGEEPS07)		Yr 2021

Ph. D.	<b>10 Nos. Thesis</b>		
	i) Pradeep Kumar (01RS/2011)	Dr. Niranjan Kumar	Completed
	iii) Hira Singh Sachdev (12RS/2012)	NIL	Completed
	iv) Miska Prasad (05RS/2013)	NIL	Completed
	v) Somnath Das (04RS/2014)	NIL	Completed
	vi) Saibal Manna (09RS/2019)	NIL	On going
	vii) Rupak Kumar (02PRS/2017)	NIL	On going
	viii) Deepak Kumar Singh	NIL	On going
	ix) Kumaresh Pal	Dr. Kumari Namrata	On going
	x) Pallavi Chaudhary	NIL	On going

10. **Administrative (Work) Experience:**

- (i) Assistant Warden, Hostel – B, N.I.T. Jamshedpur
- (ii) Assistant Warden Hostel – E, N.I.T. Jamshedpur
- (iii) Assistant Prof-in-charge, Examination, N.I.T. Jamshedpur
- (iv) Laboratory-in-charge, Electrical Workshop, N.I.T. Jamshedpur
- (v) Laboratory-in-charge, Microprocessor Lab, N.I.T. Jamshedpur
- (vi) Assistant Warden, Hostel – I, N.I.T. Jamshedpur
- (vii) Laboratory-in-charge, Computer Center, Elect. Engg. Deptt. N.I.T. Jamshedpur
- (viii) P.G. Co-ordinator, w.e.f. 1<sup>st</sup> August, 2006 to 04-12-2008
- (ix) Warden, Hostel – E
- (x) Recognition and Accreditation Cell
- (xi) Academic Review Committee
- (xii) Head of Electrical Engg. Department from 11.09.2020 to Continue

11. **Summer/Winter School Courses Attended: 20 Nos.**

Name of the Courses	Place & Sponsored by	Dates
Non-conventional Energy Sources And Applications	NIT (Formerly RIT), JSR, ISTE	May, 12-24, 1997
Recent Trends in Electronic Instrument Systems	MIT, Muzaffarpur, ISTE	Oct. 5-16, 1998

Recent Advances in Industrial Management	REC, Jalandhar, AICTE – ISTE	28.12.1998 – 08.01.1999
Probability, Random Processes and Elements of Information Theory	IIT, Kanpur, QIP	June 14 -26, 1999
Total Quality Management Concepts And Applications	B. E. College, Hawrah, ISTE	23.12.1999 – 05.01.2000
Vacuum Science And Technology	IIT, Kharagpur, AICTE – ISTE	06.03.2000 – 17.03.2000
Teachers Role in Engineering Education	NIT (Formerly RIT), JSR, ISTE	25.12.2000 – 13.01.2001
Some Aspects of Modelling and Simulation of Electrical System	NIT (Formerly RIT), JSR, ISTE	24.12.2001 – 06.01.2002
Industrial Productivity Improvement Through Innovative Techniques	NIT (Formerly RIT), JSR, AICTE/ISTE & STTP	17.06.2002 – 30.06.2002
Professional Excellence & Ethics For Teachers	IIT, Roorkee, QIP	06.10.2002 – 11. 10.2002
Introduction to Electropneumatics EP211	FESTO CONTROLS PVT. LTD. INDIA	10.04.2006 – 14.04.2006
Interpersonal Effectiveness (Level II)	IIT, Kharagpur, Continuing Education Programme	10.07.2006 – 14.07.2006
Intelligent Control of Electric Drives	IIT, Roorkee, QIP	31.07.2006 – 04.08.2006
Programming and Data Structures	NIT (Formerly RIT), JSR TEQIP	02.01.2007 – 08.01.2007
World Renewable Energy Network (WREN) International Conference	Esplanade Hotel Fremantle, Western Australia	04-08 February 2007
Numerical Methods and its Application in Science and Engineering	NIT , JSR MHRD	19.08.2013 – 23.08.2013
REGULATION AND POLICY FOR POWER SECTOR REFORMS IN	NIT , JSR	June 12-13, 2014

INDIA		
Workshop on Advanced Computational Mathematics	NIT, JSR TEQIP-II	23 <sup>rd</sup> June – 27 <sup>th</sup> June 2014
Solar Photovoltaic-Embedded System Application	IIT Bombay	18 <sup>th</sup> -22 <sup>nd</sup> April 2016
Emerging Trends and Future Challenge in Power System Operation and Control	NIT , JSR MHRD	20-24 June, 2016

12. **Participation in Workshop/Conference/Seminar/Symposium etc: 2 Nos.**

13. **Details of Research Publications: 40 Nos.**

Information to be given in order as below:

Authors' names (sequences as in paper), Titles of paper, name of journals / conferences, Place, Year, Page nos.

1. S. N. Sinha, M. K. Agrawal, B. N. Roy, A. K. Akella and R. B. Prasad, “**Solid Waste Generation in Steel Plants and its Reutilisation**”, Environment and Waste Management, NML, Jamshedpur, 1999, ISSN:0971-9407, pp.177-191.
2. S. N. Sinha, M. K. Agrawal, R. B. Prasad, A. K. Akella & S. B. Prasad, “**Renewable Energy Sources – An Answer For Tomorrow**”, Proceeding of the National Seminar on Energy Technologies for Sustainable Development, B. I. T., Mesra, Ranchi, 1999, pp.58 – 63.
3. A. K. Akella, R. P. Saini and M. P. Sharma, “**Electrification of Remote Area Through Renewable Energy Sources**”, In Proceeding of Technical Session on “Global Summit on Infrastructure Development of Jharkhand” organized by RIT, Jamshedpur on Jan 11-12, 2003, pp. 52-57.
4. A. K. Akella, Dr. R. P. Saini and Dr. M. P. Sharma, “**An Aspects of Small/Mini/Micro/Pico/Nano–Hydro Power For Developing countries**”, International Conference on Systematics, Cybernetics and Informatics, PENTAGRAM, Hydrabad, 2004, pp. 33-38.
5. A. K. Akella, M. P. Sharma and R. P. Saini, “**Optimum Utilization of Renewable Energy Sources in a Remote Area**”, Science Direct, ELSEVIER

Journal, Renewable and Sustainable Energy Reviews, Vol. No. 11, Issue 5, pp.894-908, 2007

6. A. K. Akella, R. P. Saini and M. P. Sharma, “**Social, Economical and Environmental Impacts of Renewable Energy Systems**”, International Conference on Renewable Energy for Sustainable Development in the Asia Pacific Region, 4-7 February 2007, Fremantle, Western Australia.
7. A. K. Akella, R. P. Saini and M. P. Sharma, “**Sizing and Cost Analysis for Integrated Renewable Energy System in a Study Area**” International Conference on Renewable Energies and Power Quality, European Association for the Development of Renewable Energy, Environment and Power Quality (EA4EPQ)- University of Sevilla, Spain 28-30 March, 2007.
8. D.K.Lal, M.S.Denesh and A.K.Akella”**Modelling and Analysis for Hybrid Power Generation In India**”, National Conference on Future Perspective Renewable Energy Source, KIIT University, pp-61to67, Dec’2009
9. Shyamsunder, Sankalp Saurabh and A.K.Akella,”**Modeling, Simulation and Optimization of integrated Alternative Source of Energy System with Grid Substation**”, IOSR Journal of Electrical and Electronics Engineering,e-ISSN:2278-1676,p-ISSN:2320-3331, Vol.9, Issue2 Ver. IV (Mar-Apr.2014). pp56-63.
10. Amit Anand, A.K.Akella, “**Modeling and Analysis of Single Diode Photovoltaic Module using MATLAB/Simlink**”, Int. Journal of Engineering Research and applications, ISSN: 2248-9622, Vol. 6, Issue 3, (Part-1) March 2016, pp.29-34.
11. Pradeep Kumar, Niranjana Kumar & A.K.Akella,” **Review of D-STATCOM for Stability Analysis**”. IOSR Journal of Electrical and Electronics Engineering, ISSN: 2278-1676,Vol.1, Issue 1 (May-June 2012), pp.69-75.
12. Pradeep Kumar, Niranjana Kumar & A.K.Akella,”**A Simulation based case study for control of DSTATCOM**”, ISA Transaction, Science Direct, ELSVIER, 53 (2014), pp.767-775.
13. Pradeep Kumar, Niranjana Kumar, A.K.Akella,” **Dynamic Performance of STATCOM on the Induction Generator based Wind farm**”, International Journal of ChemTech Research, ISSN:0974-4290, Vol,5, No.5, pp.2464-2470 (July-Sept 2013),
14. Pradeep Kumar, Niranjana Kumar, A.K.Akella,”**Modeling and Simulation of Different System Topologies for DSTATCOM**”. AASRI Procedia. 5, (2013), pp.249-261.



15. Pradeep Kumar, Niranjana Kumar & A.K.Akella," **Six Leg DVR topology for Compensation of balanced linear loads in three phase four wire**", International journal of System Assurance Engineering Management, ISSN:0975-6809, Vol.5, No.4 (2014), pp.524-533.
16. Pradeep Kumar, Niranjana Kumar, A.K.Akella,"**Performance Assessment of voltage and current source inverter based DSTATCOM**", Energy Education Science and Technology Part A: Energy Science and Research, Vol.33, Issue 5, (2015), pp.2709-2726.
17. Pradeep Kumar, Niranjana Kumar, A.K.Akella," **Comparative Analysis of Voltage and Current source inverter based DSTATCOM**", Turkish Journal of Electrical Engineering and Computer Sciences, ISSN: 1300-0632, 24 (2016), pp.3838-3851.
18. H.S.Sachdev, A.K.Akella," **Rural Electrification through renewable energy source small hydro**", International Journal of Innovative Research in Engineering Applications, Vol.01, Issue 01, September2015, pp.01-10.
19. H.S.Sachdev, and A.K.Akella," **POTENTIAL, SIZING AND COST ANALYSIS FOR SMALL HYDRO POWER PLANTS**", Mc-Graw Hill Education Professional 2014, pp.274-283.
20. H.S.Sachdev, A.K.Akella," **A Linear Programming Approach to the design of small hydro energy systems in a study area**", Energy Education Science and Technology Part A: Energy Science and Research, ISSN: 1308-772X, (2015) Vol.33, Issue 6, pp.3097-3108.
21. Hira S.ingh Sachdev, Ashok Kumar Akella, Niranjana Kumar," **Analysis and evaluation of small hydropower Plants: A bibliographical survey**", Journal, Renewable and Sustainable Energy Reviews, ISSN: 1364-0321, 51(2015), pp.1013-1022.
22. M.Prasad, A.K.Akella," **Voltage sag characteristics in Power distribution system under fault conditions**", Energy Education Science and Technology Part A: Energy Science and Research, ISSN: 1308-772X, (2015) Vol.33, Issue 6, pp.3177-3192.
23. M.Prasad, A.K.Akella," **ZSI based DVR for Power quality Enhancement in power distribution system**", International Journal for Technological Research in Engineering, ISSN: 2347-4718, Vol.3. Issue 9, May 2016, pp.2240-2244.
24. Prasad Miska, Ashok Kumar Akella," **Modeling and Simulation of SRF and PI controlled DSTATCOM for power quality Enhancement**", International Journal of TechnoChem Research, ISSN: 2395-4248, Vol.02.No.02, pp.141-150, 2016.

25. M.Prasad and Ashok Kumar Akella,” **POWER QUALITY ENHANCEMENT BY SIX-LEG DSTATCOM IN THREE-PHASE FOUR WIRE DISTRIBUTION SYSTEM,**” *Advances in Engineering: an International Journal*, Vol.1, No.1, 2016, pp.13-22.
26. Miska Prasad and Ashok Kumar Akella,” **PERFORMANCE EVALUATION OF TWO DIFFERENT INVERTER CONFIGURATIONS OF DVR FOR MITIGATION OF VOLTAGE DISTURBANCES**”, *International Journal of Electrical Engineering Systems Research*, Vol. 6, No. 2, July-December 2016, pp.139-148.
27. Prasad Miska and, Ashok Kumar Akella, “**Performance of DSTATCOM Control Schemes for Voltage Quality Improvement**”, *Australian Journal of Basic and applied Sciences*, 10(15) October 2016, pp.315-324.
28. MsikaPrasad, Ashok Kumar Akella, Somnath Das and Sweta Kumari, “**Voltage Sag, Swell and Harmonics by Solar Photovoltaic fed ZSI base UPQC**” *International Journal of Renewable Energy Research*, 2017, Vol.7, No.4, pp.1646-1655.
29. Ashok Kumar Akella and Somnath Das, “**Technical and Socio-Economic Aspects of Hybrid Renewable Sources: A Step-by-Step Approach**” *International Journal of Applied Engineering Research* ISSN 0973-4562, 2017, Vol. 12, No. 21, pp11228-11241.
30. Ashok Kumar Akella, “**Optimal Modelling of Hybrid Renewable Energy Systems: A Bibliographical Survey**” *Journal of Alternative and Renewable Energy Sources*, 2018, Vol.4, Issue 3, pp.16-32.
31. Msika Prasad, J. Munichandra Sekher and A.K.Akella, “**Voltage Swell Minimization by Solar Photovoltaic fed Impedance-Source Inverter base DVR**” *Proceeding of 2018 IEEE International Conference on Current Trends toward Covering Technologies*. Coimbatore, India, pp.410-415.
32. Msika Prasad, J. Munichandra Sekher and A.K.Akella, “**Performance Comparison of Voltage Swell Characteristics in Power Distribution System**” *Proceeding of 2018 IEEE International Conference on Current Trends toward Covering Technologies*. Coimbatore, India, pp.438-443.
33. Somnath Das and Ashok Kumar Akella, “**A Control Strategy for Power Management of Isolated Micro Hydro-PV- Battery Hybrid Energy System**” *4<sup>th</sup> International Conference on Electrical Energy Systems (ICEES)*. 2018 IEEE, pp.397-401
34. M. Prasad, A.K.Akella and Almoataz Y. Abdelaziz<sup>c</sup>, “**Design And Analysis of Solar Photovoltaic fed Z-Source Inverter based Dynamic Voltage Restorer**” *Acceptance of Manuscript (Manuscript #SCI-1805-2000(R2))*, 18 February 2019.

35. Ashok Kumar Akella, Saibal Manna, **“Optimal Modelling of Hybrid Renewable Energy System : A Bibliographical Survey”**, International Conference on “Water, Energy, and Environmental Sustainability 2020 (WEES 2020)
36. Ashok Kumar Akella, Saibal Manna, **“Design and Analysis of Grid Connected Solar Photovoltaic System,”** International Conference on “Water, Energy, and Environmental Sustainability 2020 (WEES 2020)
37. Ashok Kumar Akella, Saibal Manna, **“Comparative study of isotropic and anisotropic sky models to estimate solar radiation incident on tilted surface for New Delhi ,”** International Conference on “Water, Energy, and Environmental Sustainability 2020 (WEES 2020)
38. S. Manna, S. Shaw and A. K. Akella, **"Design of Higher-Order Regulator System using Pole-Placement Technique,"** 2020 International Conference on Computational Intelligence for Smart Power System and Sustainable Energy (CISPSSE), Keonjhar, Odisha, India, 2020, pp. 1-4, doi: 10.1109/CISPSSE49931.2020.9212270.
39. S. Singh, S. Manna, M. I. Hasan Mansoori and A. K. Akella, **"Implementation of Perturb & Observe MPPT Technique using Boost converter in PV System,"** 2020 International Conference on Computational Intelligence for Smart Power System and Sustainable Energy (CISPSSE), Keonjhar, Odisha, India, 2020, pp. 1-4, doi: 10.1109/CISPSSE49931.2020.9212203.
40. Saibal Manna, Ashok Kumar Akella, **“Design and performance analysis of second order system using various MRAC technique”**, National Conference on Electric Power and Renewable Energy Conference-2020

#### 14. Books Published

Sl. No.	Topic	Sole Author	ISBN	Year/Publishers
1	Principles of FACTS Devices	Dr. A.K.Akella	978-613-9-87847-5	2018/ LAMBERT Academic Publishing
2	Modeling of Hybrid (Wind+ Photovoltaic + Diesel) Power Generation System	Dr. A.K.Akella	978-613-9-83048-0	2018/ LAMBERT Academic Publishing
3	Modelling and Simulation of Hybrid Renewable Energy Systems	Dr. A.K.Akella	978-613-9-81596-8	2018/ LAMBERT Academic Publishing
4	Solar Photovoltaic and other Renewable Energy Systems	Dr. A.K.Akella	9-781726-353054	2019/ Create Space

15. **Teaching Experience:** Date on which 24 years 06 months (about) teaching experience completed up to 25.08.2020.

- (a) Under Graduate: 12 years
  - (i) Microprocessor, Signals and Systems
  - (ii) Power System-1&2
  - (iii) Electrical M/C-1
  - (iv) Basic Electrical Engg.
  - (v) Non-conventional Energy Generation System
  - (vi) Modern Power Station Practice
- (b) Post Graduate: 11 years
  - (i) Microprocessor and its Applications
  - (ii) Advance Control System Engg
  - (iii) Energy and Renewable Energy System

16. Present Basic Pay + DA & other allowances and gross total Pay as below:

- Basic + DA+TA
- Rs. 1,66,700/- + DA+TA
- Pay Rs. 2,25,932/- (as per 7<sup>th</sup> CPC)

I certify that the information given above is true to the best of my knowledge and belief.

Place: N.I.T. Jamshedpur

Date: 31/10/2020



(Signature of Candidate)