

Name: Dr. Sudip Kumar Deb

Designation: Professor

Institute: Assam Engineering College

Department: Mechanical Engineering

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Educational Qualifications:

Degree	Year	University/Institute	Class	Specialization
B.E.	1982	Gauhati University	I	Mechanical Engineering
M.Tech.	1987	IIT, Kharagpur	I	Material Handling & Equipment Maintenance
MBA	1992	Gauhati University	I	HRD & Marketing Management
Ph.D	2002	Jadavpur University, Kolkata	-	Industrial Engineering & Management

Professional Experience:

Designations	From	To
1. Lecturer, Assam Engineering College, Guwahati	1983	1999
2. Assistant Professor, Jorhat Engineering College.	1999	2008
3. Professor, Assam Engineering College, Guwahati	2008	continuing

Publications(2013-2016)

International Journal papers:

1. "Managing and Analyzing Manufacturing Defects—A Case of Refrigerator Liner Manufacturing", International Journal of Current Engineering and Technology, Inpressco, USA, Special issue – 2, (2014), pp-54-61.

2. "Computer Aided Measurement System Analysis of Attribute Data: A Case of Liner Manufacturing", International Journal of Precision Technology, Inderscience publishers, UK,

2014 Vol. 4 No. 1|2, pp-69-80.

3. "Temperature Augmentation in Compact Solar Thermal System", International Journal of Scientific & Engineering Research, Vol.4, Issue 10, October-2013, ISSN: 2229-5518
4. "Essence of Maintenance Planning and Scheduling for Improving Quality and Productivity in Fly Ash Brick manufacturing Industry". International Journal of Business Quantitative Economics and Applied Management Research (IJBEMR) ISSN 2349-5677. Vol 1, issue 09, 2015, pp: 13-25.
5. "Improving Quality by Implementation of Capacity Planning in Fly Ash Brick manufacturing Industry. Global", Journal on Advancement in Engineering and Science (GJAES) ISSN 2395-1001. Vol 1, issue01, 2015, pp: 64-68.
6. "Comparative Analysis of Different Micro Energy Resources under Distributed Generation", Asian Journal of Electrical Sciences, ISSN: 2249 - 6297 Vol. 5 No. 1, 2016, pp.40-42.

National Journal papers:

1. "Thermal Analysis and Modelling of Non-Tracking Parabolic Solar Concentrator with Waste Heat Recovery", Energy Research and Environmental Management: An Innovative Approach, ISBN 978-81 - 930595-2-7, 2014.

International Conference papers:

1. "Comparative Analysis of Manufacturing System Using Cause – Effect Diagram and System Dynamics Model", 5th International & 26th All India Manufacturing Technology, Design and Research (AIMTDR), IIT, Guwahati, December 12- 14, 2014.
2. "System Dynamics Model in the Analysis of Manufacturing Defects and Process Improvements", 5th International & 26th All India Manufacturing Technology, Design and Research (AIMTDR), IIT, Guwahati, December 12- 14, 2014.
3. "Polygeneration Solar Thermal System", Proceedings of GRAND RENEWABLE ENERGY 2014, 27 July - 1 August, 2014, Tokyo Big Sight, Tokyo, Japan.
4. "Polygeneration solar air heater", 2015 International conference on alternative Energy in Developing Countries and Emerging Economies (2015AEDCEE), Proceedings, May 28-29, 2015, Bangkok, Thailand.
5. "Quality Improvement Through Value Engineering In Fly Ash Based Brick Manufacturing Industry". Proceedings, International Science & Technology Congress (IEMCONGRESS-2014), Kolkata, 2014, pp: 420-427.

National Conference papers:

1. "System Design Process of Small Photovoltaic (PV) Solar Powered Water Pumping for Irrigation", National Seminar on Solar Energy Utilization and Opportunities in NER(NSSEU-2015), pp 1-4, April 2015, AEC, Guwahati.
2. "Polygeneration Solar Thermal Collector", National Seminar on Solar Energy Utilization and Opportunities in NER(NSSEU-2015), pp 19-23, April 2015, AEC, Guwahati.

Publications(2017-2020)

- 1.S.K.Deb, B.J. Phukan, "Assessment of Thermal Comfort and Indoor Air Quality in an Air Conditioned Room", International Journal of Engineering Technology Science and Research, Volume 4, Iss October 2017, 896-902ue 10, ISSN 2394 – 3386.
2. S.K.Deb, B. Dhiman, M. Choudhury, D. Chakrabarty, " Micro solar energy systems: Product design intervention facilitating sustainable development for rural north east India", Smart Innovation, System and Technologies, Vol 2, 66, 2017, Springer nature Singapore, 10.1007/978-981-10-3521-0_10.
3. Bashab J Phukan, S K Deb, "Performance improvement of Split Air conditioner using evaporative cooling method in the climatic condition of Guwahati", International Research Journal of Engineering and Technology (2018), e-ISSN:2395-0056, p-ISSN:2395-0072.
4. Bashab J Phukan, S K Deb, "Performance analysis of Air Conditioner with variable thermostat and ambient temperature", February 2019, 40-49, International Advanced Research Journal in Science, Engineering and Technology, Volume 6, Issue 02, ISSN:2393–8021, DOI 10.17148/IARJSET.2019.6207.
5. Bashab J Phukan, "Indoor Air Quality and Thermal Comfort assessment of a split air conditioner with ventilation system", International Journal for Research in Engineering Application & Management, Volume-04, Issue-12, ISSN: 2454–9150, DOI:10.18231/2454-9150.2019.0165.
6. S.K.Deb, M. Bhuyan, R. Rahman and H. Doloi, "Computer Aided Design of a Multipurpose Wheelchair for Rural Areas of Assam", Proceedings of 1st International conference on Smart Villages and rural Development (COSVARD-2018), organized jointly by University of Melbourne and AEC in Guwahati in December 2018.
7. S. K. Deb, Dr A. Chakraborty, and R. Pawani, "- A conceptual model framework of Smart Village for Sustainable Development", Proceedings of 1st International conference on Smart Villages and rural Development (COSVARD-2018), organized jointly by University of Melbourne and AEC in Guwahati in December 2018.
8. S.K.Deb, M. Bhuyan and H. Doloi, "Computer aided analysis to select optimal rural housing technique for rural areas of Assam", Proceedings of 2nd International conference on Smart Villages and rural Development (COSVARD-2019), organized jointly by University of Melbourne and AEC in Guwahati in December 2019.
9. S.K.Deb and Biswajit Borah, "Numerical modeling of phase change material to enhance heat transfer using extended surfaces", International Research Journal of Engineering and

Technology (IRJET), Volume: 05 Issue: 03 | Mar-2018, p-ISSN: 2395-0072.

10. S.K.Deb, Reeshab Pratim Upamanya, Aditya Bishwakarma and Vishal Vivek Saikia, "Fabrication of carbon capture device using activated charcoal", National Conference on Advances in Mechanical Engineering, Assam Engineering College, March 2020.

11. S.K.Deb, Kabita Roy and B.J.Phukan, "Possibilities of condensate recovery from split air conditioner in the climatic condition of Guwahati city and its utilization", National Conference on Advances in Mechanical Engineering, Assam Engineering College, March 2020.

12. "Assessment of Thermal Comfort and Indoor Air Quality in an Air Conditioned Room", National conference on Science, Technology & Environment: Prospects and Limitations in the 21st Century (NCSTEPL-2017), BBEC, Kokrajhar.

13. "Renewable Energy Utilization in India- Issues and Challenges", National conference on Non-conventional Energy: Harvesting Technology and its Challenges, 17-18 October, 2017, Assam Engineering College, Guwahati.

14. "Reducing Energy Consumption through Evaporative Cooled Condenser under Air Conditioning System: A Review", National conference on Non-conventional Energy: Harvesting Technology and its Challenges, 17-18 October, 2017, Assam Engineering College, Guwahati.

15. "Design and Development of Efficient and Cost Effective Solar Cooker", National conference on Non-conventional Energy: Harvesting Technology and its Challenges, 17-18 October, 2017, Assam Engineering College, Guwahati.

Details of Interaction of Faculty Members with outside World:

1. For 2018-19

Serial No	Activity/Interaction with outside World
1	Visited University of Melbourne from 12.3.2018 to 20.4.2018 as a part of the collaborative research project on Smart Villages.
2	Attended as adviser to assist the Union Public Service Commission (UPSC) in the personality test board for Engineering Services Examination 2018 held in UPSC, Dholpur House, Shahjahan Road, New Delhi.
2	Member of core committee for the Smart Assam collaborative project on construction Management between the University of Melbourne and Assam Engineering College.
3	Member of Organizing committee of the 1st International conference on Smart Villages and rural Development (COSVARD-2018), organized jointly by University of Melbourne and AEC in Guwahati.
4	Attended the 7 th Senate meeting of Cental Institute of Technology (CIT), Kokrajhar, Assam.
5	Attended as resource person in the collaborative training programme for State Government working Engineers on Construction Management organized jointly by the University of Melbourne and AEC.

6	Attended as Examiner for final year project presentation in GIMT, Guwahati.
7	Attended as Examiner for final year project presentation in Mechanical Engineering of Don Bosco school of Engineering, Azra, Guwahati.

2. For 2019-20

Serial No	Activity/Interaction with outside World
1	Attended as Invited speaker in 2nd edition of National Conference on Recent Advances in Science & Technology (NCRASST 2019) during May 15-17, 2019 at Guwahati.
2	Attended as Examiner for final year project presentation in GIMT, Guwahati.
3	Attended as Examiner for final year project presentation in Mechanical Engineering of Don Bosco school of Engineering, Azra, Guwahati.
4	Attended as chairperson on 04.12.2019 in Technical session in second International conference on Smart Villages and rural Development (COSVARD-2019), organized jointly by University of Melbourne and AEC in Guwahati.
5	Attended the 9 th Senate meeting of Cental Institute of Technology (CIT), Kokrajhar, Assam.
6	Attended as Subject Expert in the selection of Assistant Professor for Mechanical Engineering in GIMT, Azra, Guwahati.

3. For 2020-21 (up to May 2020)

Serial No	Activity/Interaction with outside World
1	Attended the 10 th Senate meeting (on line meeting) on 15.05.2020 of Cental Institute of Technology (CIT), Kokrajhar, Assam.
2	Attended Invited Speaker in the webinar on “Technical Education Scenario Post COVID-19 Lockdown: Challenges & Opportunities” organized by Electrical Engineering Department of GIMT, Azra, Guwahati on 13.05.2020.
3	Attended academic committee meeting on line of CIT, Kokrajhar.

Member of Professional Institutions: 2

- (i) Fellow of Institution of Engineers(I),
- (ii) Life member of Indian Society for Technical Education

Member of Organizing Committee of Conference/Workshop:3

Post Graduate Thesis guided:7

PhD Thesis guided: 3(Produced), 2(submitted) and one on going.

1. “Development of Productivity and Quality Improvement Plans in Enterprises under Changing Global Environment” by Mr. Abhijit Chakroborty, 2013.
2. “On some aspects of Planning and Control in ERP system” by Sri Asim Gopal Barman, 2012.
3. “Modeling and Experimentation of solar Thermal Energy System and its Optimization” by Sri Binoy Chandra Sarma, 2018.
4. “A critical study of enhancing Six Sigma practice in refrigerator liner manufacturing” by Ms. Barnali Choudhury, report received in March 2020, viva awated.

5. “Some aspects of performance improvement in split air conditioning system” submitted by Mr. Bashab Jyoti Phukan in December 2019, viva awated.

Total Short Term Course (STC/FDP) attended:

In CAY 2019-20

Serial No	Title of the Course	Organizer	Sponsoring Agency	Course Duration
1	3 -D printing	M.E. Deptt, AEC	TEQIP-III, AICTE	25 Nov to 29 Nov, 2019
2	Quality and Quality Engineering	M.E. Deptt, AEC	TEQIP-III, AICTE	03 Dec to 07 Dec, 2019
3	Project Management	M.E. Deptt, AEC	TEQIP-III, AICTE	03 Feb to 07 Feb, 2020
4	Psychology in Education	ETE. Deptt, AEC	TEQIP-III, AICTE	27 Jan to 01 Feb, 2020
5	Upstream and downstream Petroleum processing in NE Region	Ch E Dept, AEC	TEQIP-III, AICTE	17 Feb to 21 Feb, 2020

In CAY 2018-19

Serial No	Title of the Course	Organizer	Sponsoring Agency	Course Duration
1	Recent advances in welding and allied processes	AEC, Guwahati	TEQIP III, MHRD, GOI.	Two weeks
2	Faculty Induction Workshop	IIT, Kharagpur	TEQIP III	3 rd to 7 th July, 2018

In CAY 2017-18

Serial No	Title of the Course	Organizer	Sponsoring Agency	Course Duration
1	Advance materials for Engineering Applications	Chemical Engg deptt	AICTE-NEQIP, GOI.	25 th to 29 th April, 2017
2	Pedagogy	Chemical Engg deptt	AICTE-NEQIP, GOI.	5 th and 6 th May, 2017

Total Conference/Workshop/Seminar attended:

Sl No.	Title	Organizer	Course Duration
1	National conference on Non-conventional Energy: Harvesting Technology and its Challenges	Mechanical and Chemical Engineering Department, Assam Engineering College, Guwahati.	(17-18 October, 2017)
2	First International conference on Smart Villages and Rural Development (COSVARD-2018)	Organized jointly by University of Melbourne and AEC in Guwahati.	December, 2018
3	Second International conference on Smart Villages and Rural Development (COSVARD-2019)	Organized jointly by University of Melbourne and AEC in Guwahati.	December, 2019

Sponsored Research Work

Granted a research project entitled as “Design and development of bio-digester based on hostel kitchen waste in AEC” of amount of Rs 3 lakh under sponsored collaborative programme of TEQIP III of ASTU during the year 2019-20.

Administrative Engagements and Experience:

1. Member of Academic cell of Assam Engineering College from 2012 to 2020 and engaged in preparing academic calendar, class routine and teaching facilities planning.
2. Coordinator of Post graduate Entrance Examination and Admission for the period 2014 to 2017.
3. Coordinator of PhD Entrance Examination and Admission for the period 2018 to 2020 under Assam Science and Technology University.
4. Member of BOG, Assam Engineering College from 2018 onward.
5. Member of Anti ragging committee since 2012.
6. Member of anti ragging squad since 2017.
7. Member of campus development and sustainable committee since 2018.
8. Member of University (ASTU) Research Committee since 2018.
9. Member of CEE state counseling cum admission committee since 2012.
10. Member of first semester induction programme since 2010.