

CURRICULUM VITAE

Name : **Dr B V BABU**

Full Name : **Budida Varahala Babu**

Addresses :

1. Correspondence : Dean - School of Engineering and Sciences (SEAS)
SRM University - AP, Amaravati
Neerukonda, Mangalagiri Mandal, Guntur District
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Homepage : <http://bvbabu.wixsite.com/dr/bvbabu>

Google Scholar : <http://scholar.google.co.in/citations?user=1yVdKQ8AAAAJ&hl=en&oi=ao>

Scopus : <http://www.scopus.com/scopesprx.elsevier.com/authid/detail.url?authorId=7102607954>

Microsoft Academic Search: <http://academic.research.microsoft.com/Author/17995415/b-v-babu>

2. Residence : Apartment No. 808, Kaveri Tower (Tower-3)
SRM University - AP, Amaravati
Neerukonda, Mangalagiri Mandal, Guntur District
PIN - 522 502 (AP) India

3. Permanent : House No. 5-10-39/1, Annapurna Nilayam
Opp. Municipal Ward No. 13 Sachivalayam, Bank Colony
TUNI - 533 401 (AP) India

Date of Birth : February 15, 1961.

Sex : Male

Family:

My Father Late Sri Venkata Ramana (1937-2015) was a Businessman and Mother Late Smt Annapurna (1942-2018) was a Homemaker. I have Two Sisters (One Elder and One Younger to me) and Two Brothers (Both Younger to me). I got married in 1985 to Ms Shailaja (Born in 1963), who did her M.Sc. (Food & Nutrition) from Ravi Shankar University, Raipur. She worked as a Lecturer in a Government Degree College during the initial years of her professional career, but later decided to be a Full-time Homemaker. We are blessed with two children. Daughter Shruti (Born in 1987) did her MS in Software Engineering and works for International Business Machines (IBM) at Chennai, India as a Senior Software Engineer and Team Leader. Son Abhinav (Born in 1991) did his Dual Degree from BITS Pilani and works for Google at Warsaw, Poland, Europe as a Senior Software Engineer and Technical Team Leader. Daughter Shruti got married in 2015 to Prabhu Kiran (Born in 1986 and did his B.Tech from IIT-Madras and PGDM from IIM-Indore), who works for US Technologies Global (USTG) at their Chennai Office as Senior Manager and they are blessed with two sons namely Vivaan (Born in 2017) and Rihansh (Born in 2019). My hobbies include singing, music composition, playing keyboard, reading spiritual books, walking, and practicing Yoga and Pranayama.

Educational Qualifications:

Degree	University/Institute	Year	Subject	Class
Ph D	IIT, Bombay	1994	Hydrodynamics and Heat Transfer	9.57 CPI in course work
M Tech	CIT, Coimbatore	1985	Chemical Engineering	I
B Tech	A U College of Engineering Andhra University, Waltair	1983	Chemical Engineering	I

Project Titles:

- **Ph D Thesis:** Hydrodynamics and Heat Transfer in Single-phase Liquid and Two-phase Gas-Liquid Co-current Downflow through Packed Bed Columns (1989-93).
- **Ph D Seminar:** Single- and Two-phase flow Heat Transfer in Packed Beds (1989-90).
- **M Tech Dissertation:** Studies on Reduction and Acetylation of p-Nitro and p-Nitroso phenols (1983-85).
- **B Tech Project:** Report on the Production of Cobalt Sulfate (1982-83).

Professional Experience:

Organization/ Institution	Position	Period	
		From	To
SRM University-AP (SRMAP), Amaravati (Andhra Pradesh)	Professor & Dean School of Engineering and Sciences (SEAS)	29-12-2021	Till Date
Self Employed	Consultant (Quality Assurance in Higher Education)	01-06-2017	28-12-2021
Graphic Era University (GEU) Dehradun (Uttarkhand)	Vice Chancellor	14-07-2016	09-03-2017
Galgotias University (GU) Greater Noida (UP)	Vice Chancellor	12-05-2014	05-07-2016
DIT University (DITU) Dehradun (Uttarakhand)	Pro Vice Chancellor	19-05-2013	10-05-2014
JK Lakshimpat University (JKLU), Jaipur (Rajasthan)	Director Institute of Engineering and Technology (IET)	26-02-2011	18-05-2013

BITS, Pilani (Rajasthan)	Professor, Chemical Engineering Department Dean, Student Welfare Division Dean, Faculty Division-1 Dean, Educational Hardware Division Head, Chemical Engineering Department Assistant Dean, Engineering Services Division	01-02-2005	26-02-2011
BITS, Pilani (Rajasthan)	Associate Professor, Chemical Engineering Department Head, Chemical Engineering Department Head, Engineering Technology Department Assistant Dean, Engineering Services Division Coordinator, Intensive Teaching Workshop In Charge, Workshop Warden, Vishwa Karma Bhawan	01-02-2000	31-01-2005
Birla Institute of Technology & Science (BITS), Pilani (Rajasthan)	Assistant Professor, Chemical Engineering Department Head, Engineering Technology Department Coordinator, Intensive Teaching Workshop In Charge, Workshop Warden, Vishwa Karma Bhawan	26-08-1996	31-01-2000
DDIT, Nadiad (Gujarat) Gujarat University	Senior Lecturer, Chemical Engineering Department Advisor-in-Charge, IE(I) Student Chapter Coordinator, IAS Training Centre	04-10-1991	24-08-1996
D D Institute of Technology (DDIT), Nadiad (Gujarat) Gujarat University	Lecturer, Chemical Engineering Department Advisor-in-Charge, IE(I) Student Chapter	04-10-1985	03-10-1991

Industrial Tour: Participated in the Industrial Tour during 4/5 B Tech conducted by Department of Chemical Engineering, AU College of Engineering, Waltair during 25-12-1981 to 08-01-1982 covering the cities Madras, Bombay, and Hyderabad.

Practical Training: Undergone Practical Training in Hindustan Zinc Limited, Visakhapatnam (Andhra Pradesh) during 26-05-1982 to 18-06-1982.

Abstract of the Doctoral Work carried out at IIT-Bombay, India (1989-93):

The gas-liquid co-current downflow packed bed reactors, often referred to as trickle bed reactors (**TBRs**), are widely used in petroleum and petro-chemical industries. Various flow regimes such as trickle, pulse, spray, and dispersed bubble flow are encountered in a TBR depending upon the flow rates and physical properties of the fluids and the packing geometry. Heat transfer phenomena in TBR are not well understood. The **heat transfer parameters** (k_{er} , the effective bed thermal conductivity, and h_w , the wall-to-bed heat transfer co-efficient) depend upon the hydrodynamic properties such as liquid holdup in all the flow regimes and pulse properties (viz., pulse frequency, pulse holdup, and base holdup) in pulse flow regime.

An **experimental set-up** is designed and fabricated for studying the total liquid holdup, pulse properties, and heat transfer characteristics in single-phase liquid and two-phase gas-liquid co-current downflow through packed bed columns. Radial temperature profile is measured for estimating the heat transfer parameters from pseudo-homogeneous two-parameter model. Total liquid holdup is obtained from the RTD measurements using 3% NaCl solution as tracer. Pulse properties are measured by means of electrical conductivity technique. A **PC-based (AT-286) data acquisition system** is used for acquiring the data on RTD and pulse properties. Air-water for two-phase flow, and water for single-phase liquid flow are the systems studied in a 50 mm I.D. column using ceramic spheres (2.59 mm), glass spheres (4.05 and 6.75 mm), and ceramic raschig rings (4 and 6.75 mm) as packing materials. The experiments are carried out over a wide range of flow rates of water (3.16-71.13 kg/m²s) and air (0.01-0.898 kg/m²s) covering trickle, pulse, and dispersed bubble flow regimes. Heat transfer studies are also carried out with air under wet-bed conditions.

The importance of **total liquid holdup** is brought out, and the drawbacks of estimating this parameter from static liquid holdup (measured at no flow conditions) and dynamic liquid holdup are highlighted. The present experimental data on liquid holdup is compared with the literature correlations to check their validity.

The results of various **pulse properties** are analyzed and compared with the available correlations. New correlations are proposed for pulse frequency, pulse holdup, base holdup, and pulse velocity based on the experimental data of present study along with the data reported in literature.

The reported work on **heat transfer characteristics in single-phase and two-phase downflow through packed beds** is reviewed. The dependency of heat transfer parameters on total liquid holdup and some of the pulse properties in pulse flow regime is explained, and the results on heat transfer parameters are compared with the literature correlations. Based on the different trends observed in each of the flow regimes with gas rate, separate correlations are proposed for different flow regimes for both the parameters. The stagnant bed effective conductivity and the stagnant wall-to-bed heat transfer coefficient are modeled starting from the basic heat transfer mechanisms, and found to have a good agreement with the experimental values.

Based on the **thermal resistance networks**, predictive formulas for the heat transfer parameters in two-phase co-current downflow through packed beds are derived. The individual liquid phase heat transfer parameters are estimated from the present results of heat transfer measurements in single-phase liquid flow, and correlations are proposed for individual liquid-phase heat transfer parameters. Using individual single-phase heat transfer parameters of solid, gas, and liquid, the heat transfer parameters of two-phase flow are calculated from the **Thermal Resistance Model** and compared with the experimental data of present study as well as that reported in literature on heat transfer parameters and are found to be in good agreement.

Research Interests:

1. Evolutionary Computation (population-based nature-inspired search algorithms for optimization of complex engineering problems for both single- and multi-objective formulations)
2. Energy Engineering (biomass gasification, pyrolysis, energy integration analysis and process intensification)
3. Environmental Engineering (low cost adsorbents for removal of heavy metals and bio-filtration for removal of volatile organic compounds)

Courses Taught (1985 Onwards):

1. Evolutionary Computation
2. Modeling & Simulation
3. Process Modeling & Simulation
4. Process Plant Simulation
5. Process Design Decisions
6. Selected Chemical Engineering Operations
7. Introduction to Conflict Management
8. Reaction Engineering
9. Heat Transfer
10. Process Control
11. Transport Phenomena
12. Fluidization Engineering
13. Computer Aided Design
14. Chemical Process Calculations
15. Kinetics & Reactor Design
16. Fluid Flow Operations
17. Chemical Systems Modeling
18. Mass Transfer
19. Computer Applications
20. Chemical Engineering Economics
21. Advanced Heat Transfer
22. Advanced Chemical Engineering Modeling
23. Energy Technology
24. General Chemical Technology
25. Chemical Engineering Materials
26. Research Methodology

Academic Committees:

1. Member, Planning Committee for Syllabus & Structure for Industrial Chemistry Course at SBCJ Science College, Cambay affiliated to Gujarat University, Ahmedabad (1993-96).
2. Member, Syllabus & Structure Planning Committee, DDIT Nadiad (1993-96).
3. Member, Library Committee, BITS Pilani (1997-98, 1999-2001 & 2002-03).
4. Member, Academic Counseling Board, BITS Pilani (1997-98).
5. Member, Research Board, BITS Pilani, (1997-2000 & 2002-11).
6. Member, Faculty Recruitment Lectures Committee, BITS Pilani (1996-2011).
7. Member, Higher Degree Admissions Committee, BITS Pilani (1996-2011).

8. Member, Committee for PhD Qualifying Examinations, BITS Pilani (1996-2011).
9. Member, Organizing Committee, Intensive Teaching Workshop, BITS Pilani (1998-2005).
10. Member, Selection Committee for PS-I Student Co-Instructors, BITS Pilani (1996-2011).
11. Member, Evaluation Committee for PS-II Project Reports, BITS Pilani (1996-2011).
12. Member, Senate, BITS Pilani (1998-2011).
13. Member, Doctoral Advisory Committees, BITS Pilani (1996-2011).
14. Chief Advisor, Sri Vidya Public School, Sri Venkateswara Educational Society, Tuni.
15. Member, Nominations Committee, BITS Pilani (2003-04, 2008-09).
16. Member, Project Team, Center for Desert Development Technology (C-DDT), BITS Pilani (2008-11).
17. Expert Member, Curriculum Development, MNIT Jaipur (2008-09).
18. External Expert Member, Board of Studies, Banasthali University, Banasthali.
19. Expert Member, Peer Committee, National Assessment and Accreditation Council (NAAC), Bangalore, India.
20. Expert Member, Selection Committee for Faculty Recruitment, Banasthali University, Banasthali.
21. Expert Member, Selection Committee for Faculty Recruitment, SVNIT, Surat.
22. Expert Member, Peer Review Committee for The Natural Sciences and Engineering Research Council of Canada (NSERC), Canada.
23. Expert Member, Peer Review Committee for National Research Foundation (NRF), International Research Grants, South Africa.
24. Expert Member, Peer Review Committee for Review of Research Proposals, Council of Scientific & Industrial Research (CSIR), New Delhi.
25. Vice President (Andhra Pradesh), International Accreditation Organization (IAO), Houston, USA.
26. Review Committee Member, Sponsored Research Project, Ministry of Steel, Government of India, New Delhi.
27. Expert Member, Peer Review Committee for The Portuguese Foundation for Science and Technology (FCT), Portugal.
28. Member, National Council, Indian Society for Training and Development (ISTD), New Delhi (2011-13).
29. Chairman, Diploma Board, Indian Society for Training and Development (ISTD), New Delhi (2012-14).
30. Member, Executive Council, Indian Society for Training and Development (ISTD), New Delhi (2012-13).
31. Domain Expert, Assessment Content Management Department, National Stock Exchange India Limited (NSEIT), Bangalore.
32. Academic Expert, Academic Audit of Chemical Engineering Department, Visvesvaraya National Institute of Technology (VNIT), Nagpur, 2016-17.
33. External Expert Member, Board of Studies, Chemical Engineering Department, Visvesvaraya National Institute of Technology (VNIT), Nagpur.
34. Invited Panelist, AICTE-NCC-IP (All India Committee for Technical Education-National Coordination Committee-Induction Programme) Workshops on UHV (Universal Human Values).

Administrative Positions:

1. Secretary, QIP Scholars' Forum, IIT Bombay, 1991-92.
2. Coordinator, IAS Training Center, DDIT Nadiad, 1993-94.
3. Advisor-in-Charge, The Institution of Engineers (I), Students' Chapter, DDIT Nadiad, 1985-96.
4. Coordinator, Industrial Training for Final Semester Chemical Engineering Students, DDIT Nadiad, 1993-96.
5. Coordinator, Central Assessment Cell for Examinations, DDIT Nadiad, 1994-96.
6. Professor-in-Charge, Chemical Engineering Association, BITS Pilani, 1996-98.
7. Mentor, Higher Degree (M.E. Chemical Engineering) Student, BITS Pilani, 1996-99.
8. In-charge, Transport Phenomena Laboratory, Chemical Engineering Group, BITS Pilani, 1997-98.
9. Warden, Vishwakarma Bhawan, BITS Pilani, May 1997–February 2003.
10. Mentor, 11 Students of Academic Counseling Board (ACB), BITS Pilani.
11. Group Leader (Head of the Department), Engineering Technology Group, BITS Pilani, 1998-2004.
12. Mentor, Student of DLPD Program (B.S. Process Engineering), BITS Pilani, 1998-2002.
13. Professor-in-charge, Engineering Technology Association, BITS Pilani, 1998-2004.
14. In-charge, Reception for Higher Degree Admissions, BITS Pilani, 1997-2000.
15. In-charge, Workshop, BITS Pilani, 1998-2006.
16. Conducted Examinations for DLPD Collaborative Program BS (Power Engineering) at NTPC-Kawas, November 10-16, 1999.
17. Registration Advisor, BITS Pilani, 1997-2006.
18. Coordinator, Intensive Teaching Workshop, BITS Pilani, 1999-2003.
19. Member, Investigating Committee, Accounts of Petrol Pump, Pilani, 1999.
20. Member, Investigating Committee, Construction Engineer, BITS Pilani, 2000.
21. Group Coordinator, Viva Committee for PhD Candidates, BITS Pilani.
22. Member, Project Planning & Implementation Committee, BITS Pilani–Dubai Campus.
23. Member, Purchase Committee for Workshop Store & Building Store, BITS Pilani, June 2000 onwards.
24. Authorized Officer, Purchase Approval and Bill Passing, ESD, BITS Pilani June 2000 onwards.
25. Member, Supervising Committee, Staff Uniform matters, BITS Pilani, July 2000 onwards.

26. Member, Campus Planning & Maintenance Committee, BITS Pilani.
27. Member, Project Planning & Implementation Committee, BITS Pilani–Goa Campus.
28. Member, Executive Advisory Board, Decision Analyst, Inc. (Marketing Research & Consulting), USA, 2001 onwards.
29. Program Coordinator, Marine Engineering & Nautical Sciences Programs, Distance Learning Programmes Division (DLPD), BITS Pilani, May 2002 – December 2006.
30. Group Leader (Head of the Department), Chemical Engineering Group, BITS Pilani, December 2002 – December 2006.
31. Assistant Dean, Engineering Services Division (ESD), BITS Pilani, April 2003 – December 2006.
32. Member, Selection Committee constituted by the Institute to interview and regularize skilled workers, BITS Pilani, 2004.
33. Coordinator, One Year Work-Integrated Trade Certificate Training Programmes, BITS Pilani, 2004.
34. Member, Enquiry Committee, Theft of fresh papers from the Reprography Store of the Institute, BITS Pilani, 2005.
35. Program Coordinator, BS (Process Engineering), Chambal Fertilizers & Chemicals Limited (CFCL)-Kota, Distance Learning Programmes Division (DLPD), BITS Pilani, April 2005 – December 2006.
36. Program Coordinator, BS (Process Engineering), Hindustan Zinc Limited (HZL)-Udaipur, Distance Learning Programmes Division (DLPD), BITS Pilani, April 2005 – December 2006.
37. Coordinator, Petrotech Society, BITS Pilani, April 2005 onwards.
38. Member, Project Planning & Implementation Committee, BITS Pilani–Hyderabad Campus.
39. Dean, Educational Hardware Division (EHD), BITS Pilani, January 2007-April 2010.
40. Convenor, Committee for Obsolete items Identification, Writing-off from ledgers, and Disposal, BITS Pilani, August 2007 onwards.
41. Member, Selection Committee to Interview and Regularize Skilled Workers, BITS Pilani, 2006 onwards.
42. Convener, Enquiry Committee, Cases on 67 Daily wage workers, BITS Pilani, 2008.
43. Convener, Enquiry Committee, Cases on 3 Daily wage workers, BITS Pilani, 2008.
44. Convener, Enquiry Committee, Staff in Registrar office, BITS Pilani, 2009.
45. Coordinator, Faculty Deployment Workshops, Vision 2020-Mission 2012, August 12-20, 2009.
46. Task Force Leader, Campus Life Thrust Area, Vision 2020-Mission 2012, BITS Pilani, 2009-2012.
47. Dean, Student Welfare Division (SWD), BITS Pilani, 2010.
48. Dean (Officiating), Faculty Division (FD-I), BITS Pilani, 2010.
49. Director, Institute of Engineering and Technology (IET), JK Lakshmi Pat University (JKLU), Jaipur, 2011-13.
50. Chairman - Admissions Committee, JKLU Jaipur, 2011-13.
51. Chairman - Committee for Execution of IT Networking, JKLU Jaipur, 2011-13.
52. Chairman - ERP implementation Committee, JKLU Jaipur, 2011-13.
53. Chairman - Website Management Committee, JKLU Jaipur, 2011-13.
54. Chairman - Library Committee, JKLU Jaipur, 2011-13.
55. Chairman - Selection Committee for Systems Administrator, JKLU Jaipur, 2011-13.
56. Co-Chairman - Committee for Preparation of Manual of Delegation of Authority, JKLU Jaipur, 2011-13.
57. Co-Chairman – Committee for Review of Curricula, detailed Syllabi and Scheme of Examination for all the programmes offered by IM and IET, JKLU Jaipur, 2011-13.
58. Member - Selection Committee for Faculty Positions of IET, JKLU Jaipur, 2011-13.
59. Chairman - Cyber Crimes Prevention Committee, JKLU Jaipur, 2011-13.
60. Chairman - Hostel Committee, JKLU Jaipur, 2011-13.
61. Member, Board of Governors, DIT University, Dehradun, 2013-14.
62. Member, Governing Council, Dehradun Institute of Technology, Dehradun, 2013-14.
63. Vice Chairman, Board of Management, DIT University, Dehradun, 2013-14.
64. Vice Chairman, Finance Committee, DIT University, Dehradun, 2013-14.
65. Vice Chairman, Academic Council, DIT University, Dehradun, 2013-14.
66. Chairman, Faculty Council, DIT University, Dehradun, 2013-14.
67. Vice Chairman, Board of Research, DIT University, Dehradun, 2013-14.
68. Vice Chairman, Board of Examinations, DIT University, Dehradun, 2013-14.
69. Member, Court, Galgotias University, Greater Noida, 2014-16.
70. Member, Executive Council, Galgotias University, Greater Noida, 2014-16.
71. Chairman, Academic Council, Galgotias University, Greater Noida, 2014-16.
72. Member, National Executive Council (Member-NEC), Centre for Education Growth and Research (CEGR), New Delhi.
73. Chairman, Board of Management, Graphic Era University, Dehradun, 2016-17.
74. Chairman, Finance Committee, Graphic Era University, Dehradun, 2016-17.
75. Chairman, Planning & Monitoring Board, Graphic Era University, Dehradun, 2016-17.
76. Chairman, Academic Council, Graphic Era University, Dehradun, 2016-17.
77. Special Invitee, Academic Council, Graphic Era Hill University, Dehradun, 2016-17.
78. Chairman, Examination Committee, Graphic Era University, Dehradun, 2016-17.
79. Chairman, Research & Consultancy Board, Graphic Era University, Dehradun, 2016-17.
80. Member, UGC Approval Process Committee, SRM University - AP, Andhra Pradesh, 2021 onwards.
81. Chairman, University Lab Audit Committee, SRM University - AP, Andhra Pradesh, 2022 onwards.
82. Chairperson, University Scholarship Committee, SRM University - AP, Andhra Pradesh, 2022 onwards.

83. Chairperson, Mandarin Result Review Committee, SRM University - AP, Andhra Pradesh, 2022 onwards.
84. Chairperson, EEE 421 & MAT 355 Courses Result Review Committee, SRM University - AP, Andhra Pradesh, 2022 onwards.
85. Chairperson, Entrepreneurship, Innovation and Incubation Committee, SRM University - AP, Andhra Pradesh, 2022 onwards.
86. Chairperson, Faculty Workload and Gap Assessment Committee, SRM University - AP, Andhra Pradesh, 2022 onwards.
87. Member, Internal Quality Assurance Committee, SRM University - AP, Andhra Pradesh, 2022 onwards.
88. Chairperson, National Science Day Committee 2022, SRM University - AP, Andhra Pradesh, 2022 onwards.
89. Member, Academic Financial Support Review Committee, SRM University - AP, Andhra Pradesh, 2022 onwards.
90. Member, Welfare Measures Committee, SRM University - AP, Andhra Pradesh, 2022 onwards.
91. Chairperson, University Re-Opening Readiness Committee, SRM University - AP, Andhra Pradesh, 2022 onwards.
92. Member, Research Grant Support Committee, SRM University - AP, Andhra Pradesh, 2022 onwards.
93. Member, Vacation Leave Policy Review Committee, SRM University - AP, Andhra Pradesh, 2022 onwards.
94. Chairperson, University Space Planning Committee, SRM University - AP, Andhra Pradesh, 2022 onwards.

Chief Guest / Guest of Honour / Keynote Address:

1. **Chief Guest** and delivered the **Keynote Address** at the Inaugural function of 2-day National Seminar on **Eco-friendly Chemical Technologies in New Millennium** organized by UDCT, Amravati University, February 7-8, 2002.
2. **Chief Guest** and delivered the **Keynote Address** on the eve of Human Rights Day on **Influence of Science & Technology on Education** organized by Sri Vidya Public School, Tuni, December 10, 2002.
3. Invited as **Keynote Speaker** to deliver the **Keynote Address** at the International Conference on **Desert Technology (DT-7)**, Umaid Bhawan Palace, Jodhpur, November 9-14, 2003.
4. **Chief Guest** and delivered the **Keynote Address** on **Opportunities and Challenges for Education in India & BITS Philosophy of Education** organized by Sri Vidya Public School, Tuni, June 25, 2004.
5. **Chief Guest** for flag hoisting and receiving the Guard of Honour on 58th Republic Day of India celebrations at Vidhyashram Public School, Pilani, January 26, 2007.
6. **Chief Guest** for flag hoisting and receiving the Guard of Honour on 62nd Independence Day of India celebrations at Shri Udairam Ji Padia Vidya Mandir (Girls Senior Secondary School), Pilani, August 15, 2008.
7. Invited as **Keynote Speaker** to deliver the **Keynote Address** at the **Workshop on Process Modeling and Simulation**, University of Petroleum and Energy Studies, Dehradun, November 6-7, 2009.
8. **Chief Guest** and delivered the **Inaugural Address** at the Inaugural function of Staff Development Programme on **Innovative Teaching Techniques for Transport Phenomena** organized by ITM Universe, Gwalior, July 12-17, 2010.
9. **Chief Guest**, Sri Krishna Janmashtami Utsav Celebrations, Goenka Vidya Mandir Madhyamik Vidyalaya, Pilani, September 02, 2010.
10. **Chief Guest**, Inaugural Function of **Chem-X-Sere**, IChE Student Chapter Technical Festival, BITS Pilani, October 01-03, 2010.
11. **Chief Guest**, Inaugural Function of **Techquila-2011**, Banasthali University, Banasthali, August 28, 2011.
12. **Keynote Address** on "Biofiltration and Adsorption for Removal of Pollutants from Waste Streams", **National Seminar on Strategies for Mitigation of Environmental Degradation and Climate Change (SMED CC-2012)**, Guru Jambheshwar University of Science and Technology, Hisar, March 2-3, 2012.
13. **Keynote Address** on "Nature Inspired Differential Evolution for Single- and Multi-Objective Optimization for Complex Chemical Engineering Problems", **Conference on Technological Advancements in Chemical and Environmental Engineering (TACEE-2012)**, BITS Pilani, Pilani, March 23-24, 2012.
14. **Chief Guest**, Inaugural Address on 'Eclectic Mechanical Engineering', **National Conference on Eclectic Mechanical Engineering (EME)**, Global Institute of Technology, Jaipur, March 29-30, 2012.
15. **Keynote Address** on "Nature Inspired Modeling & Optimization Techniques", **8th Annual Session of Students' Chemical Engineering Congress (SCHEMCON-2012)**, BITS Pilani, Pilani, September 21-22, 2012.
16. **Chief Guest** and delivered the **Inaugural Keynote Address** on "Optimization in Emerging Trends and Technology", **First International Conference on Emerging Trends and Technology (ICETT-2012)**, hosted and technically sponsored by ACCENT (Association of Computer Communication Education for National Triumph), Social and Welfare Society, Sayaji Hotel, Indore, December 15-16, 2012.
17. **Keynote Address** on "Optimal Design of Complex Chemical Processes using Multi-Objective Differential Evolution", International Conference on **Advances in Chemical Engineering (ACE-2013)**, IIT Roorkee, February 22-24, 2013.
18. **Guest of Honour**, **Short Term Training Programme (STTP) on Optimisation Techniques for Engineering Design**, MNIT Jaipur, March 20-24, 2013.
19. **Guest of Honour**, **Short Term Course on Optimization Techniques for Engineering Applications (OTEA 2013)**, University College of Engineering, Rajasthan Technical University, Kota, May 08-12, 2013.
20. **Chief Guest**, **Short Term Training Programme on Energy and Environmental Conservation (EEC 2013)**, Government College of Engineering, Jalgaon, June 24-28, 2013.
21. **Chief Guest**, **International Conference on "Emerging Trends, Techniques and Research" (ICETTR-2013)**, Hotel Pride, Nagpur, September 21-23, 2013.

22. **Keynote Address** on "Innovation and Entrepreneurship – A Technological Perspective", **ISTD Northern Regional Conference on HR Manthan: A Discourse on Organisation and Social Excellence**, ISTD Dehradun Chapter, AMN Ghosh Auditorium, ONGC, Dehradun, November 22-23, 2013.
23. **Guest of Honour, International Conference on Convergence Technologies Management 2015 (ICT-2015)**, Suresh Gyan Vihar University, Jaipur, March 26-27, 2015.
24. **Keynote Address** on "Nature-Inspired Evolutionary Computation for Optimization", **i-manager's International Conference on Engineering and Technologies (IICET-2015)**, The Poovar Island Resorts, Trivandrum, Kerala, India, April 10-11, 2015.
25. **Keynote Address** on "Evolutionary Computation for Optimal Design, Synthesis and Analysis of Engineering Systems", **IEEE Sponsored International Conference on Computing, Communication and Automation (ICCCA-2015)**, Galgotias University, Greater Noida, Uttar Pradesh, India, May 15-16, 2015.
26. **Chief Guest**, Two Day National Seminar on **Recent Advancements in Electrical, Electronics and Automation Sector (RAEEA-2015)**, sponsored by DST, organized by Instrumentation & Control Engineering Department, Galgotias College of Engineering & Technology, Greater Noida, September 01-02, 2015.
27. **Invited Guest, Generation UK-India Programme**, organized by British Council, Kasturba Gandhi Marg, New Delhi, September 03, 2015.
28. **Keynote Address** on "Management Teacher: The backbone of Management Education", **MTC Global's 5th Annual Global Convention (Sankalp-2015)**, Theme: Entrepreneurial Learning and Development through Management Education: Coaching and Mentoring (ELDME), followed by conferment of 'MTC Global Award for Excellence -2015' and felicitation for 'Top 10 Thinkers-2015- Indian Ranking', New Horizon College of Engineering, Bangalore, September 11-12, 2015.
29. **Chief Guest**, Two Day National Seminar on **Interdisciplinary Approach of Science in Advancement of Technology: Art of Human Welfare**, sponsored by DST, organized by Department of Applied Sciences & Humanities, Galgotias College of Engineering & Technology, Greater Noida, October 15-16, 2015.
30. **Chief Guest, Faculty Development Programme (FDP) on 'Teaching Pedagogy and Responsibilities of an Academician'**, KCC Institute of Technology and Management, Greater Noida, November 09, 2015.
31. **Chief Guest, Edutech Entrepreneurship Conclave**, organized by Career Options Magazine, Hotel Crown Plaza, Rohini, New Delhi, November 28, 2015.
32. **Guest of Honour, International Youth Festival's (IYF) "Christmas Cantata"**, Sirifort Auditorium, New Delhi, December 25, 2015.
33. **Guest of Honour, Annual Christmas Gala Meet**, AK Mishra's Art of Success Private Limited, Zorba, 116-Mehrauli Gurgaon (MG) Road, Near Sultanpur Metro Station, New Delhi, December 25, 2015.
34. **Guest of Honour, Communication Multimedia And Infrastructure (CMAI) Association of India's New Year Eve**, Penaz Masani's Sai Sandhya, Kamani Auditorium, Mandi House, Copernicus Marg, January 01, 2016.
35. **Invited Guest, Launch Ceremony along with Huangmei Opera Performance**, hosted by China National Tourism Administration under the support of Tourism Ministry, Government of India (GOI) as a part of Visit China Year Celebration of China National Tourist Office (CNTO), Sirifort Auditorium 1, Khel Gaon Road, New Delhi, January 14, 2016.
36. **Invited Guest, NCAER's Fourth C D Deshmukh Memorial Lecture-2016 on "Financial Sector Reforms in India: The Past and the Future"** by Dr Raghuram Rajan, Governor, Reserve Bank of India, chaired by Dr Bimal Jalan, Chairman of India's Expenditure Management Commission and former Governor of the Reserve Bank of India, organized by National Council of Applied Economic Research (NCAER), Nehru Memorial Library Auditorium, Teen Murti, New Delhi, January 29, 2016.
37. **Invited Guest, Institute of Management Studies (IMS)'s Convocation-2016**, IMS-Noida, January 30, 2016.
38. **Invited Guest, Auto Expo-2016**, India Exposition Mart, Greater Noida, February 05-09, 2016.
39. **Invited Guest, 9th ASSOCHAM Higher Education Summit-2016: Role of Higher Education in Leveraging Indian Innovation Ecosystem & National Excellence Awards-2016**, Hotel Le-Meridien, New Delhi, February 17, 2016.
40. **Special Invitee, Core Committee Meeting, Center for Education Growth and Research (CEGR)**, Indian Grill Company, Outer Circle, Connaught Place, Opp. Shankar Market, New Delhi, February 17, 2016.
41. **Chief Guest, Faculty Development Programme (FDP) on "Recent Advances in Computing Technology & Applications"** sponsored by Dr APJ Abdul Kalam Technical University (AKTU), Uttar Pradesh, Lucknow, Galgotias College of Engineering & Technology, Greater Noida, February 22-26, 2016.
42. **Invited Guest, Revising India's Exam Standards: Improving Measures of Professional Competency with more Relevant and Trusted Exam Report and Workshop**, organized by PearsonVUE, India Habitat Centre, New Delhi, March 04, 2016.
43. **Invited Guest, National Symposium on Vegetarianism & Spirituality (NSVS-2016)**, jointly organized by Pyramid Spiritual Societies Movement (PSSM) and its subset organization Pyramid Meditation Centre (PMC)-Delhi, Sri Sathya Sai International Centre, Lodhi Road, New Delhi, March 12-13, 2016.
44. **Invited Guest, 4th Convocation Ceremony of Pandit Deendayal Petroleum University (PDPU)**, Gandhinagar, March 06, 2016.
45. **Invited Guest, Post Budget Interactive Session with Shri Jayant Sinha**, Hon'ble Minister of State for Finance, Federation House, New Delhi, March 08, 2016.

46. **Invited Guest, Cognizant: "Making Digital Real Separating Signal from Noise"**, Trident Hotel, Gurgaon, March 10, 2016.
47. **Invited Guest, Interactive Session and B2B meeting with the Russian Delegation from Sverdlovsk Region**, FICCI Federation House, New Delhi, March 10, 2016.
48. **Invited Guest, Girl Rising: Woh Padhegi, Woh Udegi**, The Theatre, British Council, 17-Kasturba Gandhi Marg, New Delhi, March 11, 2016.
49. **Invited Guest, The Art of Living's World Culture Festival-2016**, DND Flyway, New Delhi, March 11-13, 2016.
50. **Invited Guest, Entrepreneurship Summit 2016**, Entrepreneurship Development Cell, Indian Institute of Technology (IIT), Delhi, March 13, 2016.
51. **Invited Guest, 9th India Climate Policy and Business Conclave-2016**, organized by Education FICCI, Silver Oak, India Habitat Centre, New Delhi, March 15-16, 2016.
52. **Invited Guest, ASSOCHAM's Conference on Corporate Vision: Zero Tolerance Policies for Harassment of Women at Work Place**, Hotel Royal Plaza, New Delhi, March 18, 2016.
53. **Invited Guest, Fifth Annual Convocation of Indian Institute of Management (IIM)**, Rohtak, March 19, 2016.
54. **Invited Guest, British Council's Education UK Alumni Awards Ceremony**, British Council, 17-Kasturba Gandhi Marg, New Delhi, March 19, 2016.
55. **Invited Guest, The Economic Times Inspiring Business Leaders of India 2016**, Sahara Star Hotel, March 31, 2016.
56. **Invited Guest, The Launch Ceremony of Rankings of the Higher Educational Institutions under National Institutional Ranking Framework (NIRF)** by Hon'ble Minister of Human Resource Development, Hall No. 6, Vigyan Bhawan, New Delhi, April, 04, 2016.
57. **Inaugural Address & Keynote Address at NAAC Sponsored National Seminar on Teaching, Learning and Evaluation**, Pioneer Institute of Professional Studies (PIPS), Indore, April 08-09, 2016.
58. **Invited Guest, 1st Convocation Ceremony of Gautam Budha University (GBU)**, Greater Noida, April 12, 2016.
59. **Invited Guest, Network Dinner Reception**, On the occasion of the visit of Mr Jim Watson, Mayor of Ottawa, Canada, invited by His Excellency Nadir Patel, High Commissioner for Canada to India, Canada House, 4 Dr. A.P.J. Abdul Kalam Road, New Delhi, April 18, 2016.
60. **Invited Guest, Building Cyber Security Skills - Launch of Qualification Packs Recognizing Women Power in the Cyber Security Space**, organized by IT-ITeS Sector Skills Council NASSCOM, Sovereign II Hall, Le Méridien Hotel, New Delhi, April 18, 2016.
61. **Invited Guest, 2nd Global Exhibition on Services (GES-2016)**, organized by Ministry of Commerce and Industry (MoCI) in association with Services Export Promotion Council (SEPC) and Confederation of Indian Industry (CII), India Expo Centre and Mart, Greater Noida, April 21-23, 2016.
62. **Keynote Address, "Artificial Neural Networks-Bio Inspired Modeling and Optimization Tool"**, **IEEE Sponsored International Conference on Computing, Communication and Automation (ICCCA-2016)**, Galgotias University, Greater Noida, Uttar Pradesh, India, April 29-30, 2016.
63. **Invited Guest, Second Convocation Ceremony of Shiv Nadar University (SNU)**, Greater Noida, May 07, 2016.
64. **Invited Guest, IIT BHU Alumni Excellence Award for the year 2016-17** to Prof Ravi Prakash for his outstanding contributions, PHD Chamber of Commerce, PHD House, 4/2 Siri Institutional Area, August Kranti Marg, New Delhi, May 07, 2016.
65. **Chief Guest, Pyramid Spiritual Societies Movement (PSSM) Spiritual Program of Brahmarsi Subhash Patri Ji**, AWHO Convention Hall, Greater Noida, May 08, 2016.
66. **Invited Guest, Interaction with Business Delegation from Belarus**, Conference Room, Second Floor, Federation House, Tansen Marg, FICCI, May 12, 2016.
67. **Invited Guest, EPSI National Conference on "Reforming & Rejuvenating Indian Higher Education – A Stakeholders' Perspective"**, Stein Auditorium, India Habitat Centre, New Delhi, May 18, 2016.
68. **Invited Guest, digital LEARNING's Jnana Sangama, National Convention on Higher Education**, The Lalit Ashok, Bengaluru, May 27-28, 2016.
69. **Invited Guest, FICCI-GEF Workshop on "Towards Educational Eco-System for Post-Industrial University"**, FICCI, New Delhi, June 27, 2016.
70. **Exclusive VIP Invitee, Amazon Web Services (AWS) Government and Educational Leaders Forum**, The Imperial, New Delhi, June 29, 2016.
71. **Key Speaker, 7th World Education Summit (WES-2016)**, organized by Elets Technomedia Private Limited, Le Méridien, New Delhi, August 05-06, 2016.
72. **Invited Guest, 86th Annual Session of The National Academy of Sciences India (NASI)**, jointly organized by Uttarakhand State Council For Science & Technology (UCOST) & Uttarakhand Technical University, Convocation Hall of Forest Research Institute (FRI), Dehradun, December 02-04, 2016.
73. **Invited Guest, Inter-alia**, Special Tea being hosted by the Hon'ble Governor of Uttarakhand, Dr K K Paul for NASI, Council members and Vice Chancellors, Rajbhawan, December 02, 2016.
74. **Guest of Honour, Programme on "Spirit of Innovation & Awareness towards SME Incubator"**, organized by Ministry of Micro, Small and Medium Enterprises (MSME) of Government of India (GOI) in collaboration with Graphic Era University (GEU), Dehradun, November 16, 2016.

75. **Invited Guest Speaker, Industry-Academia Interaction for Improvement of Quality of Academics (IAI-2019), Chief Guest: Hon'ble Vice President of India Sri M Venkaiah Naidu**, Invited Talk Title: "Industry-Institute Partnership for Quality and Excellence in Higher Education Through Teaching-Learning, Research and Innovation", Jointly Organised by Indian Institute of Petroleum & Energy (IIPe), Visakhapatnam, IIM-Visakhapatnam, NRDC-Visakhapatnam, CII-Andhra Pradesh, AP Chambers AU-Visakhapatnam and Government of Andhra Pradesh, Dr YVS Murthy Auditorium, AU College of Engineering, Visakhapatnam, June 02-03, 2019.
76. **Guest of Honour & Invited Plenary Speaker** in Inaugural Session, **International Conference on Advances in Chemical and Petrochemical Engineering (ACAPE-2020)**, Jointly Organised by Departments of Chemical Engineering & Petroleum Studies, Aligarh Muslim University (AMU), as a part of University's (AMU) Centenary Celebrations, Aligarh, February 22-24, 2020.
77. **Invited Panelist**, "Outcome Based Education (OBE) With a Focus on Experiential Learning (EL)", Online Event on 'Experiential Learning Summit-2020', Organized by Creating Talks, New Delhi, November 28, 2020.
78. **Invited Panelist, AICTE-NCC-IP** (All India Committee for Technical Education-National Coordination Committee-Induction Programme) **Workshops on UHV** (Universal Human Values), 2020-21.
79. **Chief Guest**, Online Event on "9th Foundation Day Celebrations of JNTUK SPE Student Chapter", Jawaharlal Technological University (JNTU), Kakinada, July 03, 2021.
80. **Expert Panelist**, "Experiential Learning (EL) Through Outcome Based Education (OBE)", Online Event on 'Experiential Learning Conclave 2021', Organized by GlobalShala, New Delhi, July 15, 2021.
81. **Invited Panelist**, 'Core Group Meeting for Preparing the Modalities to conduct the National level Workshop on CURRICULUM FRAMEWORK' for Under Graduate Engineering Programs, Organised by Institute for Academic Excellence, Hyderabad, Online Webinar, November 15, 2021.

NAAC Visits as Expert Peer Team Member / Member Coordinator / Chairman:

1. Assessors Interaction Meeting, National Assessment and Accreditation Council (NAAC), Bangalore, October 23-24, 2008.
2. University of Petroleum and Energy Studies (UPES), Dehradun, Gurugaon, and Rajahmundry, November 10-15, 2008: *As Member*.
3. Maharaj Vijayaram Gajapathi Raj College of Engineering (MVGRCE), Vizianagaram, April 20-22, 2009: *As Member*.
4. Bannari Amman Institute of Technology (BIT), Sathyamangalam, Coimbatore, June 5-7, 2009: *As Member*.
5. University of Calcutta (UoC), Kolkata, December 7-10, 2009: *As Member*.
6. Annamacharya Institute of Technology and Sciences (AITS), Rajampet (Kadapa Dist.), February 6-7, 2010; *As Member Coordinator*.
7. Chaitanya Bharathi Institute of Technology (CBIT), Hyderabad, March 08-10, 2010; *As Member Coordinator*.
8. Maharshi Dayanand University (MDU), Rohtak, April 27-29, 2010: *As Member*.
9. As a Resource Person, Invited Talk on "NAAC Accreditation Process, SSR preparation, and Case Study discussion", Programme on Quality Initiatives in Technical and Higher Educational Institutions (in compliance with NBA and NAAC Accreditation), Quality and productivity Division, Engineering Staff College of India (Institution of Engineers), Hyderabad, January 23-25, 2012.
10. Evaluation of NAAC Preparations by KL University (KLU), Vijayawada, February 10-12, 2012.
11. AVC College of Engineering (AVCCE), Mannampandal (Nagapattinam Dist.), October 04-06, 2012; *As Chairman*.
12. Sree Sastha Institute of Engineering and Technology (SSIET), Chennai, October 10-12, 2012; *As Member Coordinator*.
13. BMS College of Engineering (BMSCE), Bangalore, November 19-21, 2012: *As Member*.
14. KSRM College of Engineering (KSRMCE), Kadapa, January 10-12, 2013; *As Member Coordinator*.
15. Mahavir Institute of Engineering and Technology (MIET), Bhubaneswar, March 14-16, 2013: *As Member Coordinator*.
16. Pioneer Institute of Professional Studies (PIPS), Indore, September 15-17, 2014; *As Chairman*.
17. As a Resource Person, Invited Talk at National Workshop on 'How to get Grade A in NAAC', organized by ALERT Knowledge Services-Gurgaon, Radisson Blule Plaza, New Delhi, July 04, 2015.
18. As a Resource Person, Invited Talk at National Workshop on 'How to get Grade A in NAAC', organized by ALERT Knowledge Services-Gurgaon, Shivalikview, Chandigarh, August 01, 2015.
19. Evaluation of NAAC Preparations by Graphic Era University (GEU), Dehradun, September 05-06, 2015.
20. Sri Shivsubramaniya Nadar College of Engineering (SSNCE), Kalavakkam (Off Chennai), June 19-21, 2017; *As Chairman*.
21. Avinashilingam Institute of Home Science and Higher Education for Women (AIHSAHEFW), Coimbatore, February 25-27, 2019: *As Chairman*.
22. Shri Sai College of Engineering and Technology (SSCET), Bhadravati, Chandrapur District, Maharashtra, March 27-28, 2019: *As Chairman*.
23. Don Bosco Institute of Technology (DBIT), Bengaluru, Karnataka, May 15-16, 2019; *As Chairman*.
24. Shri Guru Gobind Singhji Institute of Engineering and Technology (SGGSIET), Nanded, Maharashtra, February 03-04, 2020: *As Chairman*.
25. Baseliros Mathews II College of Engineering (BMCE), Kollam (Quilon), Kerala, February 25-26, 2021; *As Chairman*.
26. Resource Person, "Curricular Aspects" & "Research, Innovation and Extension", Online National Workshop on 'Transformation through NAAC Accreditation Process for Higher Educational Institutions', Organized by Institute for

Academic Excellence (IAE) in Collaboration with Collegiate Education & Technical Education Department (CETED), Government of Telangana, Hyderabad, June 21-22, 2021.

27. Bansal Institute of Science and Technology (BIST), Bhopal, Madhya Pradesh, December 06-07, 2021; As *Chairman*.

Bangladesh Visits as External Reviewer (Overseas / International QA Expert) for Self-Assessment Reports of IQAC, UGC, Government of Bangladesh (GoB):

1. Department of Urban and Rural Planning (URP), Khulna University (KU), Khulna, Bangladesh, September 26-28, 2016.
2. Department of Biochemistry and Molecular Biology (BMBD), Rajshahi University (RU), Rajshahi, Bangladesh, August 01-03, 2017.
3. Department of Fisheries (FD), Rajshahi University (RU), Rajshahi, Bangladesh, August 05-07, 2017.
4. Department of Political Science (PSD), Rajshahi University (RU), Rajshahi, Bangladesh, August 08-10, 2017.
5. Department of Electrical and Computer Engineering (ECE), North South University (NSU), Dhaka, Bangladesh, October 23-25, 2017.
6. Department of Political Science and Sociology (PSS), North South University (NSU), Dhaka, Bangladesh, October 26-29, 2017.
7. Department of Petroleum and Mining Engineering (PME), Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh, November 11-14, 2017.
8. Department of Biochemistry and Molecular Biology (BMB), Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh, November 15-17, 2017.
9. Department of Applied Nutrition and Food Technology (ANFT), Islamic University (IU), Kushtia, Bangladesh, December 23-25, 2017.
10. Department of Applied Chemistry and Chemical Engineering (ACCE), Islamic University (IU), Kushtia, Bangladesh, December 26-28, 2017.
11. Department of English (ENG), University of Asia Pacific (UAP), Dhaka, Bangladesh, January 07-09, 2018.
12. Department of Chemistry (CHEM), Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh, January 14-16, 2018.
13. Department of Computer Science and Engineering (CSE), University of Asia Pacific (UAP), Dhaka, Bangladesh, January 17-19, 2018.
14. Department of Chemistry (CHEM), Khulna University of Engineering and Technology (KUET), Khulna, Bangladesh, January 23-25, 2018.
15. Department of Theatre and Performance Studies (TPS), University of Dhaka (DU), Dhaka, Bangladesh, February 10-12, 2018 (Requested for postponement due to my mother's sudden demise on February 06, 2018).
16. Department of Theoretical Physics (TP), University of Dhaka (DU), Dhaka, Bangladesh, February 13-15, 2018 (Requested for postponement due to my mother's sudden demise on February 06, 2018).
17. Department of Tourism & Hospitality Management (THM), University of Dhaka (DU), Dhaka, Bangladesh, February 17-19, 2018 (Requested for postponement due to my mother's sudden demise on February 06, 2018).
18. Department of Computer Science and Engineering (CSE), Primeasia University (PAU), Dhaka, Bangladesh, February 24-26, 2018.
19. Department of Electrical and Electronics Engineering (EEE), Primeasia University (PAU), Dhaka, Bangladesh, February 27-March 01, 2018.
20. Department of Business Administration (BA), Premier University (PU), Chittagong, Bangladesh, March 03-05, 2018.
21. Department of Mathematics, Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh, March 07-09, 2018.
22. Department of Wet Process Engineering (WPE), Bangladesh University of Textiles (BUTEX), Dhaka, Bangladesh, March 12-14, 2018.
23. Department of Otolaryngology-Head & Neck Surgery (ORL-HNS), Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh, April 21-23, 2018.
24. Department of Oral & Maxillofacial Surgery (OMS), Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh, April 24-26, 2018.
25. Department of Mechanical Engineering (ME), Rajshahi University of Engineering & Technology (RUET), Rajshahi, Bangladesh, May 03-06, 2018.
26. Department of Civil Engineering (CE), Rajshahi University of Engineering & Technology (RUET), Rajshahi, Bangladesh, May 07-09, 2018.
27. Department of Physical Medicine & Rehabilitation (PMR), Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh, June 02-04, 2018.
28. Department of Pathology (PATH), Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh, June 05-07, 2018.
29. Department of Rheumatology (RHM), Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh, September 24-26, 2018.
30. Department of Microbiology and Immunology (MBI), Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh, September 27-30, 2018.

Assessor for Arogya World India Trust in Healthy Workplace Assessment of Corporates:

1. Adani Kattupalli Port Limited, Chennai, September 12, 2020.

Invited Lectures / Talks:

1. Delivered Lectures on "Fluid Flow Operations", **Package Program on Chemical Engineering for Non-Chemical engineers**, organized by Department of Chemical Engineering & DDIT Alumni Association of DDIT Nadiad, Inder Residency, Ahmedabad, December 21-23, 1995.
2. Delivered Lectures on "Heat Transfer", **3-Day Course on Chemical Engineering for Non-Chemical Engineers & Chemists**, jointly organized by Department of Chemical Engineering of DDIT Nadiad and Ankleshwar Industries Association, Ankleshwar, July 12-14, 1996.
3. Delivered Lectures on "Fluid Flow Operations", **3-Day Course on Chemical Engineering for Non-Chemical Engineers & Chemists**, jointly organized by Department of Chemical Engineering of DDIT Nadiad and Ankleshwar Industries Association, Ankleshwar, July 12-14, 1996.
4. Delivered an Invited Talk on "Hydrodynamics and Heat Transfer in Trickle Bed Columns", BITS Pilani, July 24, 1996.
5. Delivered Lectures on "Mathematical Modeling and Simulation", **Seminar and Intensive Course on Process Control and Simulation for Chemical and Metallurgical Industries**, BITS Pilani, April 4-7, 1997.
6. Delivered Lectures on "Computers in Process Control", **Seminar and Intensive Course on Process Control and Simulation for Chemical and Metallurgical Industries**, BITS Pilani, April 4-7, 1997.
7. Delivered an Invited Talk on "BITS Model of Education and its Flexibilities", Sri Prakash Educational Trust, Payakaraopeta, June 08, 2000.
8. Delivered an Invited Lecture on "Character Building and Career Development", Sri Prakash Educational Trust, Payakaraopeta, June 09, 2000.
9. Delivered Lectures on "Novel Adsorbents for solid-liquid separations", **Seminar and Intensive Course (SIC-2001) on Novel Separation Techniques and their applications to Indian Chemical Industries**, BITS Pilani, March 21-23, 2001.
10. Delivered Lectures on "Process Integration", **Seminar and Intensive Course (SIC-2001) on Novel Separation Techniques and their applications to Indian Chemical Industries**, BITS Pilani, March 21-23, 2001.
11. Delivered a Talk on "Knowledge, Experience and Ideas gained at **CHEMCON-2001**", BITS Pilani, January 02, 2002.
12. Delivered a Talk on "BITS Educational System–Role of faculty members", Tolani Maritime Institute, Induri, July 15, 2002.
13. Delivered a Talk on "BITS Model of Education–Flexibilities for students", Tolani Maritime Institute, Induri, July 15, 2002.
14. Delivered a Talk on "Experience and Ideas gained at Joint International Conference of **SEAL'02, ICONIP'02 & FSKD'02**, attended during November 18 – 22, 2002, Singapore", BITS Pilani, January 16, 2002.
15. Delivered a Talk on "BITS Educational System–Role & Responsibilities of Faculty members", RL Institute of Nautical Sciences, Madurai, June 21, 2003.
16. Delivered a Talk on "BITS Model of Education–Philosophy & Flexibilities for students", RL Institute of Nautical Sciences, Madurai, June 21, 2003.
17. Delivered an Invited Presentation on "Optimal Design of Heat Exchangers using Evolutionary Computation Techniques", **Curriculum Development Cell Workshop on "Heat Exchangers Design and Optimization"**, IIT Delhi, March 26, 2004.
18. Delivered Lectures on "Fluid Flow Operations", "Mass Transfer Operations", and "Heat Transfer Operations" of Basic Chemical Engineering Operations, **Academic Refresher Course Programme-1 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, June 10-July 24, 2004.
19. Invited as a Guest Faculty and delivered an invited lecture on "Global Optimization using Stochastic Search Methods" on 16-08-2004, **SERC School / CEP Course on 'Process Optimization, Data Driven Modeling and Advanced Process Control'**, IIT-Bombay, Mumbai, August 16-20, 2004.
20. Delivered Lectures on "Fluid Flow Operations", "Mass Transfer Operations", and "Heat Transfer Operations" of Basic Chemical Engineering Operations, **Academic Refresher Course Programme-II for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, October 9–November 22, 2004.
21. Addressed the students of collaborative programme on BS (Manufacturing Management) at Bharat Forge Limited (BFL), Pune, February 20, 2005.
22. Addressed the students of collaborative programmes on BS (Marine Engineering), and BS (Nautical Technology), TMI, February 21, 2005.
23. Delivered Lectures on "Energy Integration Analysis", **Workshop on Energy Saving in Steam Systems** organized by Centre for Renewable Energy and Environmental Development (CREED), BITS Pilani and Thermax Babcock and Wilcox Limited, Pune, BITS Pilani, April 26-30, 2005.
24. Invited Seminar Talk on "Modified Differential Evolution for Optimization of Process Design and Synthesis Problems", Department of Chemical and Biomolecular Engineering, National University of Singapore (NUS), Singapore, December 3, 2006.
25. Invited Distinguished Speaker, **International Conference on Life Cycle Assessment and Life Cycle Management Methodologies**, The Boulevard, Kuala Lumpur, Malaysia, December 4-5, 2006.

26. Delivered Lectures on “Fluid Flow Operations” and “Mass Transfer Operations”, **Academic Refresher Course Programme-III (Academic Development Programme in Basic Process Engineering) for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, November 06–December 05, 2006.
27. Delivered Lectures on “Fluid Flow Operations” and Mass Transfer Operations”, **Academic Development Programme in Basic Process Engineering-4 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, December 08, 2006–January 09, 2007.
28. Delivered Lectures on “Fluid Flow Operations” and Mass Transfer Operations”, **Academic Development Programme in Basic Process Engineering-5 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, January 12–February 13, 2007.
29. Invited Distinguished Speaker, **National Seminar on Bio Films: Challenges & Applications**, Bharatiya Vidya Bhavan's Bhavan' Research Center in Collaboration with University of Mumbai - Sesquicentennial Celebrations, January 12-13, 2007.
30. Invited Speaker, **Indo-US Workshop on Advances in Computational Optimization and Analysis of Systems**, Indian Institute of Technology (IIT), Kanpur, February 07-09, 2007.
31. Invited Resource Faculty, **Workshop on Advanced Heat and Mass Transfer for the Employees of Engineers India Limited (EIL) New Delhi**, EIL-New Delhi, October 12-13, 2007.
32. Invited Speaker, "Chemical kinetics and dynamics of plasma assisted pyrolysis of assorted, non nuclear waste" at a one-day follow up discussion meeting on **New Research directions in the use of power beams for environmental applications (RPDM-PBEA-2007)** to a Symposium on “Power beams for clean environment and processes” organized by Laser & Plasma Technology Division of Bhabha Atomic Research Centre (BARC), Mumbai on September 18, 2007.
33. Invited Talk, **Differential Evolution Strategies**, Indian Institute of Technology (IIT), Roorkee, October 23, 2007.
34. Invited Lecture, **Bio-inspired Evolutionary Approach for Optimization**, APOGEE-2008, BITS Pilani, March 12, 2008.
35. Invited Peer Team Member, **Assessors' Interaction Meeting** for professional educational experts, National Assessment and Accreditation Council (NAAC), Bangalore, October 23-24, 2008.
36. Invited Speaker, **Indo-French Workshop on Biohydrogen Production** under the aegis of Indo French Center for Promotion of Advance Scientific Research, organized by The Energy and Resources Institute (TERI)-New Delhi, Hotel Jaypee Manor, Mussoorie, November 6-8, 2008.
37. Invited Speaker, **Indo-US Workshop on Materials Design: Measurement, Modeling and Informatics**, organized jointly by School of Materials Science and Engineering, Bengal Engineering and Science University (BESU)-Shibpur and Combinatorial Sciences and Materials Informatics Collaboratory (CoSMIC-IMI), Iowa State University-USA with the support of Tata Steel-Jamshedpur and Stanley Foundation-USA, Kolkata, January 5-7, 2009.
38. Delivered Lectures on “Fluid Flow Operations”, **Academic Development Programme in Basic Process Engineering-6 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, January 07–February 03, 2009.
39. Delivered Lectures on “Fluid Flow Operations”, **Academic Development Programme in Basic Process Engineering-7 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, February 04–March 03, 2009.
40. Invited Talk, **Practices vs. Performance**, Staff Association, BITS Pilani, February 09, 2009.
41. Invited Lectures on Modelling & Simulation, Traditional Optimization Techniques and their limitations, Population-based search algorithms for optimization, and Energy Integration Analysis, **Workshop on Application of Advanced Tools/ Techniques in Research**, BITS Pilani Goa Campus, Goa, March 6-7, 2009.
42. Delivered Lectures on “Fluid Flow Operations”, **Academic Development Programme in Basic Process Engineering-8 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, March 14-April 10, 2009.
43. Delivered Lectures on “Fluid Flow Operations”, **Academic Development Programme in Basic Process Engineering-9 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, June 29-July 24, 2009.
44. Delivered Lectures on “Fluid Flow Operations”, **Academic Development Programme in Basic Process Engineering-10 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, August 13-September 09, 2009.
45. Invited Talk, **Biomass gasification: A conversion technology for production of gaseous fuels**, IIP Golden Jubilee Symposium on "Fossil Economy to Biomass Economy - Opportunities and Challenges", IIP-Dehradun, August 19-21, 2009.
46. Invited Lectures on Overview of Process Modeling & Simulation, and Population-based search algorithms for single- and multi-objective optimization, **Workshop on Process Modeling and Simulation**, University of Petroleum and Energy Studies (UPES), Dehradun, November 6-7, 2009.
47. Delivered Lectures on “Fluid Flow Operations”, **Academic Development Programme in Basic Process Engineering-1 for the Employees of Bharat Aluminum Company Limited, Korba**, Organized by Practice School Division, BITS Pilani, February 26-March 25, 2010.
48. Delivered Lectures on “Fluid Flow Operations”, **Academic Development Programme in Basic Process Engineering-11 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, June 21-July 19, 2010.

49. Delivered Lectures on "Fluid Flow Operations", **Academic Development Programme in Basic Process Engineering-2 for the Employees of Bharat Aluminum Company Limited, Korba**, Organized by Practice School Division, BITS Pilani, June 25-July 22, 2010.
50. Delivered Lectures on "Introduction to Transport Phenomena" and "Energy Integration Analysis", **Staff Development Programme on Innovative Teaching Techniques for Transport Phenomena** organized by ITM Universe, Gwalior, July 12-17, 2010.
51. Conducted a Workshop as an Invited Resource Person on "Evolutionary Algorithms for Optimization of Process Design and Synthesis Problems", **DST sponsored Short Term Training Programme on Nature Inspired Optimization Algorithms: Recent Trends, Theory and Applications** organized by IIT Roorkee, March 25-28, 2011.
52. Invited Talk on "Bio-inspired Modelling: Artificial Neural Networks", **Techquila-2011**, Banasthali University, Banasthali, August 28, 2011.
53. Invited Talk on "An Improved Differential Evolution Strategy for Optimization", **International Conference on Soft Computing for Problem Solving (SocProS-2011)**, IIT Roorkee, December 20-22, 2011.
54. Invited Talk on "NAAC Accreditation Process, SSR preparation, and Case Study discussion", **Programme on Quality Initiatives in Technical and Higher Educational Institutions (in compliance with NBA and NAAC Accreditation)**, Quality and productivity Division, Engineering Staff College of India (Institution of Engineers), Hyderabad, January 23-25, 2012.
55. Invited Talk on "Biofiltration for Removal of VOCs", **International conference on Control of Industrial Gaseous Emission (CIGE-2012)**, Annamali University, Annamalaiagar, India February 9-10, 2012.
56. Invited as Keynote Speaker to deliver the Keynote Address on "Biofiltration and Adsorption for Removal of Pollutants from Waste Streams", **National Seminar on Strategies for Mitigation of Environmental Degradation and Climate Change (SMED CC-2012)**, Guru Jambheshwar University of Science and Technology, Hisar, March 2-3, 2012.
57. Invited talk on 'Essential of Engineering for Managers' in the Concluding session of the **Capsule Course on Essentials of Engineering for Managers for MBA Part-II Students**, Poornima Group of Colleges, Jaipur, March 12-13, 2012.
58. Invited as Keynote Speaker to deliver the Keynote Address on "Nature Inspired Differential Evolution for Single- and Multi-Objective Optimization for Complex Chemical Engineering Problems", **Conference on Technological Advancements in Chemical and Environmental Engineering (TACEE-2012)**, BITS Pilani, Pilani, March 23-24, 2012.
59. Invited as Keynote Speaker to deliver the Keynote Address on "Nature Inspired Modeling & Optimization Techniques", **8th Annual Session of Students' Chemical Engineering Congress (SCHEMCON-2012)**, BITS Pilani, Pilani, September 21-22, 2012.
60. Invited as Keynote Speaker to deliver the Keynote Address on "Optimization in Emerging Trends and Technology", **First International Conference on Emerging Trends and Technology (ICETT-2012)**, hosted and technically sponsored by ACCENT (Association of Computer Communication Education for National Triumph), Social and Welfare Society, Sayaji Hotel, Indore, December 15-16, 2012.
61. Invited as Keynote Speaker to deliver the Keynote Address on "Optimal Design of Complex Chemical Processes using Multi-Objective Differential Evolution", **International Conference on Advances in Chemical Engineering (ACE-2013)**, Golden Jubilee Celebrations of Chemical Engineering Department, IIT Roorkee, February 22-24, 2013.
62. Invited talk on 'Essential of Engineering for Managers' in the Concluding session of the **Capsule Course on Essentials of Engineering for Managers for MBA Part-II Students**, Poornima Group of Colleges, Jaipur, March 01-04, 2013.
63. Invited Talk on "Evolutionary Algorithms for Solving Complex Engineering Design Problems", **Short Term Training Programme (STTP) on Optimisation Techniques for Engineering Design**, MNIT Jaipur, March 20-24, 2013.
64. Invited Talk on "Artificial Neural Networks as a Modeling Tool", **Workshop on Process Modeling and Simulation Under TEQIP-II**, Aligarh Muslim University, Aligarh, March 23-24, 2013.
65. Invited Talk on "Nature Inspired Optimization Techniques: Part-1 Genetic Algorithms; Part-2 Differential Evolution", **Optimization Techniques for Engineering Applications (OTEA 2013)**, University College of Engineering, Rajasthan Technical University, Kota, May 08-12, 2013.
66. Invited Expert Lecture on "Energy and Environmental Conservation: Case Studies on Pinch Technology and Adsorption", **Short Term Training Programme on Energy and Environmental Conservation (EEC 2013)**, Government College of Engineering, Jalgaon, June 24-28, 2013.
67. Invited Talk on "Multi-Objective Differential Evolution: An Evolutionary Approach for Multi-Objective Optimization", **International Conference on "Emerging Trends, Techniques and Research" (ICETTR-2013)**, Hotel Pride, Nagpur, September 21-23, 2013.
68. Invited Talk on "Developing English Language Skills to Enhance Graduates Employability: DIT University-Dehradun Model", **Vice Chancellors and Thought Leaders Round-Table Conference on Developing English Language skills to enhance graduates employability**, The Leela Palace, Chennai, November 27, 2013.
69. Invited Visit to Zhejiang University, Hangzhou, China, December 23-29, 2014.
70. Invited Lectures on "Differential Evolution (DE)" & "DE Applications", **6-Day DST-SERB School on Evolutionary Techniques for the Optimization of Chemical Engineering Systems**, University of Petroleum and Energy Studies (UPES), Dehradun, March 24-29, 2014.

71. Invited Talk on "Optimization in Engineering: An Evolutionary Approach through Differential Evolution", **International Workshop on Optimization in Engineering (OPTENG-2014)**, Bankura Unnayani Institute of Engineering (BUIE), Bankura, May 29-31, 2014.
72. Panel Member of Focus Group Discussion, **Asian Summit on Education & Skills (ASES) 2014** (Theme: Raising Quality and Technology's Support for Learning), A Partner Event to the Education World Forum (EWF) London, organized by India Didactics Association (IDA), Hotel Taj Palace, New Delhi, September 09-10, 2014.
73. Panel Member of Focus Group Discussion, **1st Cambridge English – India Partnership Summit on Building Partnerships for the Future**, The Claridges Hotels & Resorts, New Delhi, September 18, 2014.
74. Invited Talk to deliberate on the Theme, **EDU VCs' Retreat 2014 - Annual VCs' Residential Retreat on Leadership: Towards Excellence & Success**, The Pullman, Delhi NCR-Gurgaon, September 19-20, 2014.
75. Panel Member, Second Technical Session on the theme '**Building an Effective Research Ecosystem in Indian Universities**', National Conference of Vice Chancellors on "**Establishing Research Ecosystem in Universities -Breaking New Grounds**", organized by Association of Indian Universities (AIU) & The Associated Chambers of Commerce and Industry of India (ASSOCHAM), Hotel Hyatt Regency, New Delhi, January 09, 2015.
76. Special Invitee, "**Innovation and Entrepreneurship**" Conference, organized by **ICOI** (International Conference of Intellectuals) in association with **UTM** (Universiti Teknologi Malaysia) and **NIESBUD** (National Institute of Entrepreneurship and Small Business Development), NIESBUD, Noida, February 12-13, 2015.
77. Special Invitee, **The 3rd Annual Growth Net Summit (GN Summit-2015)**, The Taj Palace, New Delhi, March 25-27, 2015.
78. Panel Member, "Session III – Panel Discussion on Role of Research in Higher Education" of the 8th ASSOCHAM EDUCATION SUMMIT followed by NATIONAL EDUCATION EXCELLENCE AWARDS, Hotel Taj Mahal, New Delhi, April 18, 2015.
79. Invited Member, **Interactive meeting with Mr Ajay Shankar (Former Member Secretary-NMCC & Former Secretary-DIPP)**, Chairman of the Expert Committee for examining the possibility of replacing multiple prior permissions in starting a business with pre-existing regulatory mechanism and preparing a draft legislation for this purpose, Federation House, Tansen Marg, New Delhi, May 28, 2015.
80. Panel Member, Panel Discussion among the Vice Chancellors to share and discuss the initiatives taken at their respective Universities that resulted in receiving the Awards on the eve of the **Third National CCI Technology Education Excellence Awards 2015** (Galgotias University received "Excellence in Education Award") hosted by Gujarat Technological University (GTU), Ahmadabad, July 17, 2015.
81. Panel Member, **Panel Discussion on Industry-Academia Partnership**, Smart City-Smart World Seminar of PGE MasterTrack, Prabha Goel Enterprises FZE-Dubai, Crowne Plaza, Greater Noida, Delhi NCR, July 24, 2015.
82. Invited Member, **Workshop on Education Performance Excellence for Chancellors & Vice Chancellors**, organized by Education Promotion Society for India (EPSI), Speakers: Dr. Paul Grizzell and Dr. JoAnn Sternke, Baldrige Coaching-USA, sponsored by ASQ (American Society for Quality) India & Quality Council of India (QCI), India Habitat Centre, New Delhi, August 06, 2015.
83. Invited Delegate, **The Economic Times E-Tech India Summit 2015**, Hotel Le-Meridien, New Delhi, August 28, 2015.
84. Invited Member, **Asian Summit on Education & Skills (ASES) 2015**, organized by India Didactics Association, a partner event to the Education World Forum (EWF)-London and is hosted by Ministry of Education-Karnataka, Bengaluru, September 08-09, 2015.
85. Panel Member, Panel Discussion on 'Emerging Trends in Higher Education', **3rd Uttar Pradesh Technical Education Summit 2015**, Hotel Taj, Lucknow, September 05, 2015.
86. Panel Member, Panel Discussion on 'Creating India as an Innovation and Research Hub', **Higher Education Summit**, organized by Centre for Education Growth and Research (CEGR), India International Centre, New Delhi, September 18, 2015.
87. Invited Guest, **Thomson Reuters 'Research Excellence India-Citation Awards 2015'**, Hotel Taj Mahal, New Delhi, September 18, 2015.
88. Invited Talk on "Optimal Design of Engineering Systems through Evolutionary Computation", **IICHe Local Chapter**, Chemical Engineering Department, BITS Pilani, September 19, 2015.
89. Panel Member, Panel Discussion on 'Re-Skilling india', **Dataquest T-School Conference & Awards**, India Habitat Centre, New Delhi, September 23, 2015.
90. Panel Member, Interactive Panel Discussion and Launch Event focusing on Teachers and Technology, Co-hosted by **The British Council and The Open University UK**, New auditorium, British Council, New Delhi, September 30, 2015.
91. Invited Delegate, **EDU's 5th Annual Vice Chancellors' Retreat on The Campus of Tomorrow: How to Re-think, Re-design, Re-form Higher Education**, Indian Institute of Science, Education and Research (IISER), Pune, October 09-11, 2015.
92. Invited Delegate, **English Skills for a World Class Workforce Workshop**, organized by **British Council**, The Park Hotel, New Delhi, October 20, 2015.
93. Invited Delegate, **Workshop on Erasmus+, Jean Monnet and Marie Skłodowska-Curie Actions**, organized by **European Union** Delegation to India and Bhutan, for EU Public Diplomacy and Outreach in India and in the SAARC, New Delhi, October 26, 2015.

94. Panel Member, Panel Discussion on 'Educational Presentation: Technical Education - in the Changing Time', **Education Tomorrow – Shiksha Me Badlav Summit cum Expo**, organized by Governance Today-a leading ICT publication in Governance and Education, Hotel Taj Vivanta, Lucknow, October 30-31, 2015.
95. Invited Guest, **Book Launch and Panel Discussion on Governance of Higher Education Institutions in India**, organized by OP Jindal Global University, Tamerind Hall, India Habitat Centre, Lodhi Road, New Delhi, November 04, 2015.
96. Invited Delegate, **FICCI Interactive Workshop On “Trends of Global Educational Ecosystems and Their Impact on Indian Education”** with Prof. Pavel Luksha, SKOLKOVO School of Management, Director of Global Education Futures, FICCI, Federation House, Tansen Marg, New Delhi, November 05, 2015.
97. Invited Guest, **Inaugural EFMD (Brussels-Belgium) Accreditation Session**, The Imperial Hotel, Janpath, New Delhi, November 05, 2015.
98. Invited Guest, **13th National Conference on Make in India- Role of Engineers and Technologists, Auditorium, India International Centre**, organized by **Engineering Council of India (ECI)**, Max Muller Marg, New Delhi, November 16, 2015.
99. Invited Guest, **The Future of Educational Assessment in India: Challenges and Opportunities**, organized by The India-Association of Test Publishers (I-ATP) and Association of Indian Universities (AIU), India Habitat Centre, New Delhi, November 20, 2015.
100. Distinguished Invited Guest, **British Council's Networking Reception to Inaugurate Education UK Exhibitions**, British Council, 17-Kasturba Gandhi Marg, New Delhi, November 20, 2015.
101. Distinguished Invited Guest, **Panel Discussion on 'Education for a better world – preparing our students for life beyond school and university'** (moderated by Maya Mirchandani, NDTV, senior journalist) followed by Lunch Reception (to interact with IB students and IB alumni, senior government officials, industrialists, university officials and heads of IB Schools), and An Informal Interaction with a diverse cross-section of people, The Claridges Hotel, Vice Regal Hall, New Delhi, November 28, 2015.
102. Distinguished Panelist, **Panel Discussion on Building Scalable Businesses – Easy or Tough**, Edutech Entrepreneurship Conclave, Hotel Crown Plaza, Rohini, New Delhi, November 28, 2015.
103. Distinguished Invited Guest, **TÜV SÜD South Asia's Requirement Engineering High Tea Event**, Four Points by Sheraton, Plot No 9, National Highway 8, Delhi - Gurgaon Road, Samalka, New Delhi, December 01, 2015.
104. Invited Panelist, **Round Table Conclave on National Higher Education Policy**, Theme 2: Integrating the skill development in higher education, Industry linkage, Partnership with private sector and Students Support Systems, Gujarat Technological University, Ahmedabad, December 05, 2015.
105. Invited Panelist, **Panel Discussion on Innovation and Skill Development**, The Midlands Engine Alumni Event, Banquet Hall, FICCI, Federation House, Tansen Marg, New Delhi, December 09, 2015.
106. Invited Member, **88th Annual General Meeting (AGM) of FICCI**, Inaugurated by Mr Arun Jaitely, Hon'ble Minister for Finance, Corporate Affairs and Information Broadcasting, FICCI Auditorium, December 19, 2015.
107. Invited Member, **AIU North Zone Vice Chancellors' Meet 2015-16**, National Law University, Dwarka, New Delhi, December 19-20, 2015.
108. Distinguished Invited Speaker, **VIJAI BHAV–A Mega Career Fair**, a career counseling seminar for 3000 Government schools 12th standard students, organized by Confederation of Education Excellence (CEE), ECONS-The Education Experts and SCERT, Constantia Hall Auditorium, YWCA, Ashoka Road, New Delhi, December 29-30, 2015.
109. Invited Speaker, **Model for Industry-Academia Engagement and Student Support System**, Pandit Deendayal Petroleum University (PDU), Gandhinagar, January 04, 2016.
110. Invited Guest, Reception & meeting with Shri Venkataraman Ramakrishnan, Deputy Director of the Medical Research Council Laboratory of Molecular Biology (LMB) in Cambridge, British Council, 17-Kasturba Gandhi Marg, New Delhi, followed by a Talk **On Nobody's Word: Evidence and Modern Science** as a part of GREAT Talk Series of British Council by Shri Venkataraman Ramakrishnan, KK Birla Auditorium, FICCI, New Delhi, January 08, 2016.
111. Invited Key Panelist, **Round Table Discussion of Academic Leaders on Education Excellence through Collaboration and Sharing** and Launch of Book on Higher Education Leadership and Management, Center for Education Growth and Research (CEGR), Conference Room, New Delhi Institute of Management (NDIM), Tughlakabad, Near Batra Hospital, New Delhi, January 15, 2016.
112. Invited Guest Speaker, **Launch of a new Company "FIRM STEP Training And Consulting Private Limited"**, founded by Major General S K Nanda AVSM, Chairman and Board of Directors of Infogain India Private Limited, Orbit of Hotel Park Ascent, Sector-62, Noida, January 16, 2016.
113. Invited Panelist, **Round Table Meeting and Panel Discussion of the Chancellor(s) / Chairmen / President(s) / Vice Chancellor(s) / Director(s) of the Universities/Institutions**, Education Promotion Society for India (EPSI), India International Centre, New Delhi, January 20, 2016.
114. Invited Panelist, **Stakeholders' Roundtable on “Challenges & Opportunities Before Greater Noida”**, organized by Birla Institute of Management Technology (BIMTECH) in partnership with Greater Noida Industrial Development Authority (GNIDA), BIMTECH Auditorium, Greater Noida, January 27, 2016.
115. Invited Speaker, **Global Education Meet (GEM) 2016**, a two-day Conference organized by Government of Kerala in partnership with Federation of Indian Chambers of Commerce & Industry (FICCI), Trivandrum, Kerala, January 29-30, 2016.

116. Distinguished Invited Speaker - Education and Skill Development Sector, **1st International Conference on Dynamic Governance: Sociocracy Emerging Trends and Challenges (ICDGS-2016)**, National Law University, New Delhi, February 11-12, 2016.
117. Invited Panelist, **EU-UNIQUE Centre International Panel Discussion on 'Ecosystem for Internationalization of Higher Education'**, organized by Education Promotion Society for India (EPSI) in association with Birla Institute of Management Technology (BIMTECH), Shriram Hall, PHD House, New Delhi, March 01, 2016.
118. Invited Panelist, **Panel Discussion on 'Ecosystem for Internationalization of Higher Education'**, Shriram Hall, PHD House, New Delhi, March 01, 2016.
119. Invited Panelist, **EdTech Review Magazine's Higher Education Roundtable of Vice Chancellors, 2nd Higher Education Technology Conference (HETC-2016)**, Hotel Leela Ambience, Gurgaon, March 17-18, 2016.
120. Invited Jury Member, Awards for Entrepreneurs, Business Designers Magazine's **'Skill India Entrepreneurs-2016 (SIE-2016)'**, India Expo Mart, Greater Noida, March 20, 2016.
121. Invited Speaker, "Session-I: Higher Education – Vision 2020". Career Options Magazine's **"4th HIGHER EDUCATION SUMMIT & Awards for Excellence in Education"**, Le-Meridian, New Delhi, April 02, 2016.
122. Invited Speaker, **Confederation of Education Excellence (CEE) - ECONS Education Summit and Excellence Awards-2016**, Theme: Paradigm of Education Systems, Hotel Crowne Plaza, Rohini, New Delhi, April 23, 2016.
123. Invited Panelist, **FICCI's Workshop on Liberal Education in India**, Council Room, FICCI, Federation House, Tansen Marg, New Delhi, May 10, 2016.
124. Invited Resource Person, **Workshop on 'Quality Assurance Activities in India'**, Khulna University, Khulna, Bangladesh, September 29, 2016.
125. Invited Panelist, **CEO-VC Round Table, FICCI Higher Education Summit (HES) 2016**, Vigyan Bhavan, New Delhi, November 10, 2016.
126. Invited Panelist, **Brain Storming on iDEATE on Innovative Sustainable Development of Uttarakhand University-Industry Engagement**, Doon University, Dehradun, December 10, 2016.
127. Invited Panelist, **Launch of VITTIYA SAKSHARATA ABHIYAN (VISAKA)-Campaign by students of higher educational institutions for promoting a digital economy** - Meeting with Hon'ble Union Minister for Human Resource Development Mr Prakash Javadekar through Video Conferencing with State Secretaries and Vice Chancellors, Rajbhawan, Dehradun, December 08, 2016.
128. Invited Talk, **Optimization through Evolutionary Computation**, Chemical Engineering Department, Visvesvaraya National Institute of Technology (VNIT), Nagpur, July 25, 2017.
129. Invited Talk, **Quality Assurance (QA) Through Outcome Based Education (OBE)**, Bangladesh University of Engineering and Technology (BUET), Dhaka, October 28, 2017.
130. Invited Expert, **Preparation of a document for Institution of Eminence to be submitted to UGC, India**, Sri Sivasubramaniya Nadar College of Engineering (SSNCE), Rajiv Gandhi Salai (OMR), Kalavakkam, Off Chennai-603110, Tamil Nadu, November 02-03, 2017.
131. Invited Talk (Workshop Mode), **Outcome Based Education (OBE) and Curriculum Design (CD)**, University of Asia Pacific (UAP), Dhaka, January 20, 2018.
132. Invited Talk (Workshop Mode), **Outcome Based Education (OBE) Incorporating Modern Aspects of Curriculum Design (CD)**, Premier University (PU), Chittagong, March 05, 2018.
133. Invited Talk (Workshop Mode), **Outcome Based Education (OBE) and Curriculum Design (CD)**, Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, October 01, 2018.
134. Invited Talk, **"Curricular Aspects" & "Research, Innovation and Extension"**, Online National Workshop on 'Transformation through NAAC Accreditation Process for Higher Educational Institutions', Organized by Institute for Academic Excellence (IAE) in Collaboration with Collegiate Education & Technical Education Department (CETED), Government of Telangana, Hyderabad, June 21-22, 2021.
135. Invited Talk, **"Research & Innovation: Modalities & Focal Points in Research and Thrust Areas of Research"**, National Webinar on 'Current Trends in Research & Innovation, Research Paper Publications, IPR and Patents, and Research Projects & Fund Raising', Organized by Institute for Academic Excellence (IAE) in Collaboration with Collegiate Education & Technical Education Department (CETED), Government of Telangana, Hyderabad, August 27-31, 2021.
136. Invited Talk, **"Research Paper Publications: Steps to Enhance Quality Paper Publication, Presentation and Review Process"**, National Webinar on 'Current Trends in Research & Innovation, Research Paper Publications, IPR and Patents, and Research Projects & Fund Raising', Organized by Institute for Academic Excellence (IAE) in Collaboration with Collegiate Education & Technical Education Department (CETED), Government of Telangana, Hyderabad, August 27-31, 2021.
137. Invited Talk, **"Observations from NIRF 2021 Report and Rank Analysis - Universities"**, National Level Workshop on "NIRF India Rankings 2022" for Higher Educational Institutions, Organised by Institute for Academic Excellence (IAE) in Collaboration with Collegiate Education & Technical Education Department (CETED), Government of Telangana, Hyderabad, January 5-6, 2022.
138. Invited Talk, **"Parameter 2: Research and Professional Practice (RP) & Parameter 3: Graduation Outcomes (GO) - Engineering & Pharmacy"**, National Level Workshop on "NIRF India Rankings 2022" for Higher Educational Institutions, Organised by Institute for Academic Excellence (IAE) in Collaboration with Collegiate Education & Technical Education Department (CETED), Government of Telangana, Hyderabad, January 05-06, 2022.

Membership of Professional Bodies / Institutions:

1. Life Member of Indian Society for Technical Education (**ISTE**) (LM-15527).
2. Life Member of Indian Institute of Chemical Engineers (**IIChE**) (LM-12583).
3. Corporate Life Member of Institution of Engineers (India) [**IE(I)**] (M-109374/0).
4. Fellow of International Congress of Chemistry and Environment (**FICCE**) (FL/B-5009).
5. Life Member of Indian Environmental Association (**IEA**) (LM-148).
6. Life Member of Society of Operations Management (**SOM**) (LM-96/004).
7. Associate Member of the International Society for Structural and Multidisciplinary Optimization (**AMISSMO**).
8. Member of International Institute of Informatics and Systemics (**IIIS**) (M-333298).
9. Member of International Association of Engineers (**IAENG**) (M-61741).
10. Member of Society of Plastics Engineers (**SPE**) Europe.
11. Life Member of Indian Society for Training and Development (**ISTD**) (B-955/2011-LM).

Privileged Invitations from Hon'ble President of India at Rashtrapati Bhavan, New Delhi:

1. For a Concert by Ustad Abdul Rashid Khan on Saturday, 16th May, 2015 at 1900 hrs at the Rashtrapati Bhavan Auditorium.
2. For the Valedictory Function followed by Dinner on the occasion of "In-Residence Programme for second batch of NITs Scholars" on 22nd May 2015 at 1900 hrs at West Hall, RB Cultural Centre, President's Estate.
3. For a Concert by Begum Parveen Sultana on Saturday, 6th June, 2015 at 1900 hrs at the Rashtrapati Bhavan Auditorium.
4. For the "AT-HOME" Reception on the occasion of the Independence Day at Rashtrapati Bhavan on Saturday, 15th August 2015 at 1800 hrs.
5. For the 100th Birth Anniversary of Giani Zail Singh, the 7th President of India, Darbar Hall, Rashtrapati Bhavan, Thursday, 5th May, 2016 at 1245 hrs.
6. For the vocal performance by Pandit Ulhas Kashalkar at the Rashtrapati Bhavan Auditorium on Saturday, 7th May, 2016 at 1900 hrs.
7. For a Sufi Music performance by Shri Madan Gopal Singh at the Rashtrapati Bhavan Auditorium on Saturday, 9th July, 2016 at 1900 hrs.
8. For a Classical Music Performance by Pandit Chhannulal Mishra at the Rashtrapati Bhavan Auditorium on Saturday, 20th August, 2016 at 1900 hrs.

Awards / Honors / Distinctions:

1. Got listed with a Ranking of 302 out of 55,687 researchers across the World (Ranked 15th in India), with 81 publications during 1999-2017 in the same list of Top 2% in the World! **Ref: Most coveted list of "World Ranking of Top 2% Scientists"**. The full list of top 2% researchers world-wide can be found at <http://shorturl.at/qHJ4>. The subject-wise world-ranking of top 2% researchers from India is available at <http://shorturl.at/bdix8>.
2. **Member**, FICCI Higher Education Committee (**FICCI-HEC**), New Delhi.
3. **Member**, EPSI Committee of Deemed Universities, **EPSI**, New Delhi.
4. **Expert Member, Peer Team**, National Assessment and Accreditation Council (**NAAC**), Bangalore.
5. **Member**, Organizing Committee, FICCI Higher Education Summit-2016 (**FICCI HES-2016**), New Delhi.
6. **MTC Global Award for Excellence -2015** and felicitation for being one of the **Top 10 Thinkers-2015- Indian Ranking**.
7. **Vice President**, Centre for Education Growth and Research (**CEGR**), New Delhi.
8. **Member**, National Executive Council (Member-NEC), Centre for Education Growth and Research (**CEGR**), New Delhi.
9. **Honorary Advisor**, Honorary Board of Global Advisors of CIA (Confederation of International Accreditation) Commission (**CIAC**), USA.
10. **Peer Team Member (External Expert)**, Review of SA Reports, University Grants Commission (UGC), Bangladesh.
11. **Academic Advisory Board Member**, Higher Education Academy for Development (**HEAD**), Noida.
12. **Chairman, Board of Management**, Graphic Era University, Dehradun.
13. **Chairman, Academic Council**, Graphic Era University, Dehradun.
14. **Member, Court**, Galgotias University, Greater Noida.
15. **Member, Executive Council**, Galgotias University, Greater Noida.
16. **Chairman, Academic Council**, Galgotias University, Greater Noida.
17. **Member, Board of Governors**, DIT University, Dehradun (2013-14).
18. **Member, Governing Council**, Dehradun Institute of Technology, Dehradun (2013-14)..
19. **Vice Chairman, Board of Management**, DIT University, Dehradun (2013-14).
20. **Vice Chairman, Finance Committee**, DIT University, Dehradun (2013-14).
21. **Vice Chairman, Academic Council**, DIT University, Dehradun (2013-14).
22. **Chairman, Faculty Council**, DIT University, Dehradun (2013-14).
23. **Vice Chairman, Board of Research**, DIT University, Dehradun (2013-14).

24. **Vice Chairman, Board of Examinations**, DIT University, Dehradun (2013-14).
25. **Chairman, Diploma Board**, Indian Society for Training and Development (**ISTD**), New Delhi (2011-13).
26. **Executive Committee Member**, Indian Society for Training and Development (**ISTD**), New Delhi (2012-13).
27. **Member, Board of Management**, JK Lakshmi Pat University, Jaipur (2011-13).
28. **Special Invitee Member, Senate**, Sardar Vallabhbhai National Institute of Technology (**SVNIT**), Surat.
29. **Chairman, Board of Studies (BoS)**, Institute of Engineering and Technology, JK Lakshmi Pat University, Jaipur (2011-13).
30. **Board Member, Academic and Management Council**, Global Institute of Technology Society (**GIT**), Jaipur.
31. **Member, Board of Research**, JK Lakshmi Pat University, Jaipur (2011-13).
32. **Review Committee Member**, Sponsored Research Project, **Ministry of Steel**, Government of India, New Delhi.
33. **Member, National Council**, Indian Society for Training and Development (**ISTD**), New Delhi.
34. **Member, Board of Advisors**, Indo Global Business Park (**IGBP**), New Delhi.
35. **Member, Academic Advisory Board**, Vyas Institutes of Higher Education (**VIHE**), Jodhpur.
36. **Member, Advisory Board**, Sports Academy Association India (**SPAA**), Ghaziabad.
37. **Member, Advisory Council**, EMINANCE Learning Solutions Private Limited (**ELSPL**), Chandigarh.
38. **Member, Advisory Board**, Rise Finishing School (**RFS**), New Delhi.
39. **Honorary Board Advisor**, ACT Sol & Associates (**ACT Sol**), Bangalore.
40. **Member, Advisory Board**, IHF Wellness Orbitarium (**IHFWO**), Wardha.
41. **Member, Advisory Board**, Cordia Research Journal (**CRJ**), SJDCE, Sanghol, Punjab.
42. **Member, Advisory Board**, International Journal of Advanced Computer Research (**IJACR**), ACCENTS, Bhopal.
43. **Member, Academic Board of Advisors**, Strategum Eduserve Private Limited (**STRATEGUM**), Raipur.
44. **Member, Advisory Board**, EMINANCE Learning Solutions Private Limited (**EMINANCE**), Chandigarh.
45. **Member**, Board of Studies (**BOS**), Banasthali University, Banasthali, 2008 onwards.
46. **Expert Member**, Curriculum Development, Malaviya National Institute of Technology (**MNIT**), Jaipur, 2008.
47. **Member, Peer Review Committee**, The Natural Sciences and Engineering Research Council of Canada (**NSERC**), Canada.
48. **Member, Peer Review Committee**, National Research Foundation (**NRF**), International Research Grants, South Africa.
49. **Expert Member**, Research group evaluation and selection, King Fahd University of Petroleum & Minerals (**KFUPM**), Dhahran, Saudi Arabia.
50. **Expert Reviewer**, Extra Mural Research Division (EMR-II), Human Resource Development Group (HRDG), Council of Scientific & Industrial Research (**CSIR**), New Delhi.
51. **Review Committee Member**, Sponsored Research Project, Ministry of Steel, Government of India (**GoI**), New Delhi.
52. **Expert Member**, Peer Review Committee for The Portuguese Foundation for Science and Technology (**FCT**), Portugal.
53. **Expert Member**, Selection Committee for Faculty Recruitment, Banasthali University, Banasthali.
54. **Expert Member**, Selection Committee for Faculty Recruitment, SVNIT, Surat.
55. Our paper entitled "Convective and Radiative Heat Transfer in Pyrolysis of a Biomass Particle" authored by A S Chaurasia, **B V Babu**, Amanpreet Kaur, and V Thiruchitrabalam, published in Indian Chemical Engineer Journal, Vol. 47 (No. 2), pp. 75-80, April-June, 2005 earned the **Kuloor Memorial Award-2006** awarded for the **Best Technical Paper** published in the Institute's Journal "Indian Chemical Engineer" in its issues for 2005.
56. **National Technology Day** (11th May, 2003) Award obtained in recognition of the research work done in the area of 'A New Concept in Differential Evolution (DE) – Nested DE'.
57. Technical Paper entitled "Evolutionary Computation for Scenario-Integrated Optimization of Dynamic Systems" was adjudged the **SECOND BEST PAPER** presented in the 'Modeling Simulation and Control Session' at International Symposium & 54th Annual Session of IChE (CHEMCON-2001), CLRI, Chennai, December 19-22, 2001.
58. Technical Paper entitled "Adaptive networks for Fault Diagnosis and Process Control", was adjudged the **BEST PAPER** presented in the Technical Session (Miscellaneous) at International Symposium & 53rd Annual Session of IChE (CHEMCON-2000), Science City, Calcutta, December 18-21, 2000.
59. Nine of my following Research Papers have been included as **Successful Applications of Differential Evolution** (Application Nos. 7, 9, 10, 11, 12, 13, 17, 18, 19) on **Homepage of Differential Evolution**, the URL of which is: <http://www.icsi.berkeley.edu/~storn/code.html>: 1. Heat transfer parameter estimation in a trickle bed reactor; 2. Evolutionary Computation for Scenario-Integrated Optimization of Dynamic Systems; 3. Optimal Design of Shell-and-Tube Heat Exchangers using Different Strategies of Differential Evolution; 4. Evolutionary Computation strategy for optimization of an Alkylation Reaction; 5. Optimization of Thermal Cracker Operation using Differential Evolution; 6. Optimization of Non-linear Chemical Processes; 7. Optimization of Water Pumping System; 8. Optimal Design of Gas Transmission Network; 9. Differential Evolution for Multi-Objective Optimization.
60. Biography is included in 2005, 2006 & 2007 Editions of Marquis Whos Who in the World, in Dictionary of International Biography 2006, in 2000 Outstanding Intellectuals of the 21st Century 2006, and in Marquis Whos Who in Asia 2007.
61. Stood **FIRST** among the students of SRGJ College, Tuni in the Intermediate Public Examination conducted by Board of Intermediate Education, Hyderabad (AP), 1978.

Industrial Consultancy:

1. Technical Consultant for **Sangam (India) Limited Textile Industry, Bhilwara**, for Removal of Color, BOD, and COD from Effluent Treatment Plant, 2009.
2. For discussions on a consultancy project on feasibility study of Jalal Group at Bahrain (Middle East), visited Bahrain during February 11-14, 2005.
3. Consultant for **Maharashtra Electricity Regulatory Commission (MERC), Mumbai** and offering Advisory Services in the 'Study relating to Bagasse Based Co-generation', 2001-2003.
4. Consultant as Panel Expert, www.chemicalhouse.com, leading portals on chemical trade. It is the most vibrant and active site for the Chemical Industry on the net which specializes in exchange of Information in a structured way among the chemical world in more than a Hundred Countries and a Million core chemical manufacturers, traders, scientists, etc, May 2004 onwards.
5. Undertaken and completed the Process and Mechanical Design of Alcohol & Water Towers for the separation of Ethanol-Water mixture by Azeotropic Distillation using Benzene as an entrainer for **Krishna Engineering Works, Nadiad**, 1994-95.
6. Technical Consultant for **P S Traders, Ahmedabad**, for the production of Sweetened Condensed Milk (SCM) under a marketing tie-up with **Cadburys India Limited, Bombay**, and processing tie-up with **Lactose India Limited, Baroda**, 1993-96.
7. Technical Consultant for **P S Milk Processors, Ahmedabad**, for the Plant Design for the Production of various Milk products, 1993-96.

Visiting Faculty:

1. For Industrial Chemistry students in Chemical Engineering subjects at SBCJ Science College, Cambay affiliated to Gujarat University, Ahmedabad, 1995-96.
2. DLPD Contact Program of BITS for BS (Process Engineering), Indo Gulf Fertilizers & Chemicals Corporation, Jagdishpur, 1996-98.
3. PS-1 Faculty, Practice School Program of BITS, Nagarjuna Fertilizers & Chemicals Limited, Kakinada, May-July 1997.
4. PS-1 Faculty, Practice School Program of BITS, Century Textiles & Industries Limited, Mumbai, May-July 1998.
5. As a Program Coordinator, visited Tolani Maritime Institute (TMI), Induri for looking into Admissions, Comprehensive Examinations, and other related aspects of BITS Collaborative Programme on BS (Marine Engineering) at TMI, July 13-18, 2002.
6. As a Program Coordinator, visited RL Institute of Nautical Sciences (RLINS), Madurai for looking into Admissions, Comprehensive Examinations, and other related aspects of BITS Collaborative Programme on BS (Marine Engineering) at RLINS, June 19-22, 2003.
7. As a Program Coordinator, visited Tolani Maritime Institute (TMI), Induri for looking into Admissions, Comprehensive Examinations, and other related aspects of BITS Collaborative Programme on BS (Marine Engineering) at TMI, July 09-11, 2003.
8. Visited Bharat Forge Limited (BFL), Pune to discuss the issues related to BITS collaborative programme on BS (Manufacturing Management) at BFL, February 19-20, 2005.
9. As a Program Coordinator, visited Tolani Maritime Institute (TMI), Induri for looking into Grading, Semester evaluation, other related aspects of BITS Collaborative Programme on BS (Marine Engineering), and the proposed BS (Nautical Technology) programme at TMI, February 20-21, 2005.
10. Visited Chambal Fertilizers & Chemicals Limited (CFCL), Badepan (35 Kms from Kota) for discussions on proposed BITS Collaborative Programme on BS (Process Engineering) for their employees, and the proposed Practice School station at CFCL, March 7-9, 2005.
11. Visited National Thermal Power Corporation (NTPC), Antha (20 Kms from Badepan) for discussions on BITS Collaborative Programme on BS (Power Engineering) for their employees, and the proposed Practice School station at NTPC, March 9, 2005.
12. Visited Hindustan Zinc Limited (HZL), Udaipur; Chanderiya Lead Zinc Smelter (CLZS), Chanderiya; Sterlite Technology Centre, Debari; and Zawar Mining Complex, Zawar for discussions on BITS Collaborative Programme on BS (Process Engineering), MS (Management) for their employees, and the proposed Practice School station at HZL, March 27-30, 2005.
13. Visited Chambal Fertilizers & Chemicals Limited (CFCL), Badepan (35 Kms from Kota) for finalizing the admissions into BITS Collaborative Programme on BS (Process Engineering) for their employees, and meeting Practice School students at CFCL, June 5-7, 2005.
14. Visited BITS-Pilani Goa Campus (started in August, 2004 and formally inaugurated by the Honourable Prime Minister of India Dr Manmohan Singh on May 5, 2006) for looking into Chemical Engineering Laboratories and the Workshop facilities. Also visited one of the PS-1 stations of BITS-Pilani, National Institute of Oceanography (NIO) at Goa, May 22-25, 2006.

Scholarships /Fellowships:

1. Ministry of Human Resources Development, Government of India, New Delhi, Research Scholarship for Doctorate, 1989-93.

- University Grants Commission, New Delhi, Junior Research Fellowship for Master's Degree, 1983-85.

Conferences / Seminars / Workshops / Symposia / Package Programs Organized:

- Faculty Advisor, **Turbulence-95**, Inter-Departmental Seminar Presentation Competition of Technical Papers by students of DDIT, Nadiad, April 7-9, 1995.
- Convener, One day Seminar on **Total Quality Management (Incorporating ISO – 9000)** jointly organized by Institution of Engineers (INDIA) Gujarat State Center and DDIT Nadiad, May 6, 1995.
- Organizing Committee Member & Resource Person, **Package Program on Chemical Engineering for Non-Chemical Engineers**, organized by Department of Chemical Engineering & DDIT Alumni Association of DDIT Nadiad, Inder Residency, Ahmedabad, December 21-23, 1995.
- Coordinator, **State-level Inter-Collegiate Oral Quiz and Seminar presentation competition**, DDIT Nadiad, March 2, 1996.
- Faculty Advisor, **Turbulence-96**, Inter-departmental Seminar Presentation Competition of Technical Papers by students of DDIT Nadiad, April 6-9, 1996.
- Organizing Committee Member & Resource Person, **3-Day Course on Chemical Engineering for Non-Chemical Engineers & Chemists**, jointly organized by Department of Chemical Engineering of DDIT Nadiad and Ankleshwar Industries Association, Ankleshwar, July 12-14, 1996.
- Coordinator, **Seminar and Intensive Course on Process Control and Simulation for Chemical and Metallurgical Industries**, BITS Pilani, April 4-7, 1997.
- Organizing Faculty Member, **Intensive Teaching Workshop**, BITS Pilani, March 17-April 28, 1998.
- Organizing Faculty Member, **Intensive Teaching Workshop**, BITS Pilani, September 08-November 17, 1998.
- Organizing Committee Member, **One Day Workshop on Passive Solar Architecture** organized by Centre for Renewable Energy & Environment Development (CREED), sponsored by Ministry of Non-conventional Energy Sources (MNES), Government of India, BITS Pilani, February 23, 1999.
- Organizing Faculty Member, **Intensive Teaching Workshop**, BITS Pilani, June 22-July 17, 1999.
- Coordinator & Organizing Faculty Member, **Intensive Teaching Workshop**, BITS Pilani, February 24-April 20, 2000.
- Coordinator & Organizing Faculty Member, **Intensive Teaching Workshop**, BITS Pilani, September 05-November 22, 2000.
- Organizing Committee Member, **Workshop on “Women and Development in India–Issues & Challenges”** jointly organized by BITS – Pilani and Rajasthan State Commission for Women (RSCW)–Jaipur (supported by UNICEF & IREDA), BITS Pilani, January 19-20, 2001.
- Resource Faculty Member, **Seminar and Intensive Course (SIC-2001) on “Novel Separation Techniques and their applications to Indian Chemical Industries”** organized by Chemical Engineering Group, BITS Pilani, March 21-23, 2001.
- Coordinator & Organizing Faculty Member, **Intensive Teaching Workshop**, BITS Pilani, September 11-November 28, 2001.
- Coordinator & Organizing Faculty Member, **Intensive Teaching Workshop**, BITS Pilani, February 05-April 23, 2002.
- Organizing Committee Member, **Seminar on “Reorienting Social Science Education for meeting Societal Objectives: Focus on Professional Education”** jointly organized by BITS Pilani & Indian Association of Social Science Institutions (IASSI) New Delhi, BITS Pilani, March 8-9, 2002.
- Organizing Committee Member, **International Conference on “Population, Development & Environment”** organized by BITS Pilani and jointly supported by United Nations Population Fund (UNPF)-New Delhi, International Institute for Population Sciences (IIPS)-Mumbai & University Grants Commission (UGC)-New Delhi, BITS Pilani, March 15-16, 2002.
- Coordinator & Organizing Faculty Member, **Intensive Teaching Workshop**, BITS Pilani, September 04-November 27, 2002.
- Organizing Committee Member, **35th Engineers’ Day–Theme: Indian Small Scale Industries in Globalization Scenario**, BITS Pilani, September 16, 2002.
- Organizing Committee Member, **Asia Regional Workshop on “Improving Mobility for the Rural Poor: Achieving Sustainable Motorized and Non-Motorized Rural Transport”** organized by the Rajasthan Regional National Forum Group of the International Forum for Rural Transport and Development (IFRTD), BITS Pilani, September 23-26, 2002.
- Organizing Committee Member, **International Symposium on Emerging Trends in Genomics and Proteomics Education & Research**, jointly organized by BITS-Pilani and Uniformed Services University of the Health Sciences (USUHS)-Bethesda (Maryland, USA), BITS Pilani, January 12-13, 2003.
- Coordinator & Organizing Faculty Member, **Intensive Teaching Workshop**, BITS Pilani, February 05-April 23, 2003.
- Program Committee Member, **Genetic and Evolutionary Computation Conference (GECCO-2003)**, University of Illinois, Chicago, Illinois, USA, July 12-16, 2003.
- Organizing Committee Member, **36th Engineers’ Day–Theme: Improvement in Values in Engineering Profession**, BITS Pilani, September 15, 2003.
- Organizing Committee Member, National Conference on **Integrated Sustainable Water Resources Planning and Management (ISWRPM-2003)**, BITS Pilani, October 11-12, 2003.

28. Organizing Committee Member, **International Conference on Conflict Resolution: Peace and Development**, organized by BITS-Pilani, Center for International Development and Conflict Management (CIDCM)–Maryland (USA), and Indian Institute of Advance Study (IIAS)–Shimla, in association with Indian Institute of Public Administration (IIPA)–New Delhi, BITS Pilani, October 28-29, 2003.
29. Organizing Committee Member, **Second Conference on Disaster Management Case Histories**, BITS Pilani, November 14-16, 2003.
30. Organizing Committee Member (Publicity Chair), **The Second International Conference on Computational Intelligence, Robotics, and Autonomous Systems (CIRAS-2003)**, National University of Singapore, Singapore, December 15-17, 2003.
31. Session Organizer, Special Session on “Evolutionary Computation”, **The Second International Conference on Computational Intelligence, Robotics, and Autonomous Systems (CIRAS-2003)**, National University of Singapore, Singapore, December 15-17, 2003.
32. Program Committee Member, **Genetic and Evolutionary Computation Conference (GECCO-2004)**, Seattle, Washington, USA, June 26-30, 2004.
33. Project Coordinator & Resource Faculty, **Academic Refresher Course Programme-I for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, June 10-July 24, 2004.
34. Session Chair, Invited Session on “Engineering Applications of Evolutionary Computation Techniques”, **The Eighth World Multi-Conference on Systemics, Cybernetics and Informatics (SCI-2004)**, Orlando, Florida, USA, July 18-21, 2004.
35. Program Committee Member, **International Conference on Computing, Communications, and Control Technologies (CCCT-2004)**, Sponsored by The University of Texas at Austin and The International Institute of Informatics and Systemics (IIS), Austin, Texas, USA, August 14-17, 2004.
36. Organizing Committee Member, **Asia Regional Workshop on “Promoting Sustainability of Community-based Rural Transport Infrastructure”** organized by the Rajasthan Forum Group (Rajasthan) & BITS Pilani, sponsored by Swiss Agency for Development and Cooperation (SDC) & International Forum for Rural Transport and Development (IFRTD), BITS Pilani, September 6-8, 2004.
37. Organizing Committee Member, **National Seminar on “Meeting Communication Challenges at Workplace”** organized by Languages Group, BITS Pilani, supported by AICTE New Delhi, BITS Pilani, September 10-11, 2004.
38. Organizing Committee Member, **National Conference on “Structural Engineering and Mechanics (SEM-04)”** organized by Civil Engineering Group, BITS Pilani, supported by DST, CSIR, and UGC of New Delhi; and DAE, BRNS, BARC of Mumbai, BITS Pilani, September 24-25, 2004.
39. Project Coordinator & Resource Faculty, **Academic Refresher Course Programme-II for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, October 9–November 22, 2004.
40. Organizing Committee Member, **Symposium on “Prediction in Ungauged Basins for Sustainable Water Resources Planning and Management (PUBSWRPM-2004)”** organized by Civil Engineering Group, BITS Pilani, supported by CSIR and UGC of New Delhi; and Indian National Committee on Hydrology, Roorkee, BITS Pilani, October 30, 2004.
41. Organizing Committee Member, **Advanced Training Programme on “Water Resource Development and Management for NABARD Officers”** organized by Civil Engineering Group, BITS Pilani, November 3-7, 2004.
42. International Program Committee Member, **2004 IEEE Conference on Cybernetics and Intelligent Systems (CIS-2004)**, jointly organized by the IEEE SMC Society Singapore Chapter and IEEE R&A Society Singapore Chapter, Singapore, December 1-3, 2004.
43. Organizing Committee Member (Publicity Chair), **2nd International Conference on Autonomous Robots and Agents (ICARA 2004)**, Palmerston North, New Zealand, December 13–15, 2004.
44. Technical Programme Committee Member, **2nd International Conference on Autonomous Robots and Agents (ICARA 2004)**, Palmerston North, New Zealand, December 13–15, 2004.
45. Coordinator & Organizing Faculty Member, **Intensive Teaching Workshop**, BITS Pilani, February 10-April 21, 2005.
46. Project Coordinator, **Professional Skills Development Programme for the Junior Executive Trainees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, February 21–April 21, 2005.
47. Resource Faculty Member, **Workshop on Energy Saving in Steam Systems**, organized by Centre for Renewable Energy and Environmental Development (CREED), BITS Pilani and Thermax Babcock and Wilcox Limited, Pune, BITS Pilani, April 26-30, 2005.
48. Program Committee Member, **Genetic and Evolutionary Computation Conference (GECCO-2005)**, Washington DC, USA, June 25-29, 2005.
49. Program Committee Member, **International Conference on Management Engineering and Informatics (MEI-2005)**, Texas, Austin, USA, July 24-27, 2005.
50. Program Committee Member, **The 3rd International Conference on Computing, Communications, and Control Technologies (CCCT-2005)**, Texas, Austin, USA, July 24-27, 2005.
51. Organizing Committee Member, Seminar on **Entrepreneurship Culture: Issues & Challenges of Small and Intermediate Entrepreneurs (SIEs) at Grassroots Level**, BITS Pilani, September 2-4, 2005.
52. Program Committee Member, **The Third International Conference on Computational Intelligence, Robotics, and Autonomous Systems (CIRAS-2005)**, National University of Singapore, Singapore, December 13-16, 2005.

53. Program Committee Member, **The 2nd Indian International Conference on Artificial Intelligence (IICAI-2005)**, Pune, India, December 20-22, 2005.
54. Local Advisory Committee Member, **National Conference on Design for Product Life Cycle (DPLC-2006)**, BITS Pilani, February 17-18, 2006.
55. International Program Committee Member, **The 2006 IEEE International Conferences on Cybernetics & Intelligent Systems (CIS-2006)**, jointly organized by IEEE R&A and SMC Singapore Chapters, Bangkok, Thailand, June 7-9, 2006.
56. Advisory Committee Member, **International Conference on Nanotechnology-Materials and Methods (To meet Global Challenges) (CIT NANOTECH-2006)**, CIT Coimbatore, June 23-24, 2006.
57. Program Committee Member, **The 2nd International Symposium on Management Engineering and Informatics (MEI-2006)**, Orlando, Florida, USA, July 16-19, 2006.
58. Program Committee Member, **International Symposium on Knowledge Communication and Conferences (KCC-2006)**, Orlando, Florida, USA, July 16-19, 2006.
59. Organizing Secretary, **National Conference on Environmental Conservation (NCEC-2006)**, BITS Pilani, September 1-3, 2006.
60. Coordinator & Resource Faculty, **Academic Refresher Course Programme-III (Academic Development Programme in Basic Process Engineering) for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, November 06-December 05, 2006.
61. Coordinator & Resource Faculty, **Academic Development Programme in Basic Process Engineering-4 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, December 08, 2006-January 09, 2007.
62. Technical Programme Committee Member, **The 3rd International Conference on Autonomous Robots and Agents (ICARA-2006)**, Palmerston North, New Zealand, December 12-14, 2006.
63. Coordinator & Resource Faculty, **Academic Development Programme in Basic Process Engineering-5 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, January 12-February 13, 2007.
64. Advisory Committee Member, **13th National Conference on Surfactants, Emulsions & Biocolloids with Special Focus on Biomimetic Systems (NATCOSEB XIII-BIMS)**, organized by Chemistry Group of BITS-Pilani in Collaboration with Indian Society for Surface Science and Technology, Jadavpur, Kolkata, BITS Pilani, February 22-24, 2007.
65. Programme Committee Member, **The Second International Symposium on Knowledge Communication and Conferences (KCC-2007)**, Orlando, Florida, USA, July 8-11, 2007.
66. Programme Committee Member, **The 3rd International Symposium on Management, Engineering and Informatics (MEI-2007)**, Orlando, Florida, USA, July 8-11, 2007.
67. Technical Advisory Committee Member, **International Conference on Modeling and Simulation (Emerging Methods Towards Frontier Technologies) (CIT ICOMS-2007)**, CIT Coimbatore, August 27-29, 2007.
68. Program Committee Member, **The Second International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2007)**, Zhengzhou Henan Province, China, September 14-17, 2007.
69. International Program Committee Member, **2007 IEEE Congress on Evolutionary Computation (CEC-2007)**, Swissotel The Stamford, Singapore, September 25-28, 2007.
70. Resource Faculty, **Workshop on Advanced Heat and Mass Transfer for the Employees of Engineers India Limited (EIL) New Delhi**, organized by Research & Consultancy Division of BITS Pilani at EIL-New Delhi, October 12-13, 2007.
71. Expert Team Member, Technology Clinic, **2nd National Convention on Energising Entrepreneurship Through Innovation**, BITS Pilani, November 2-3, 2007.
72. International Program Committee Member, **The Fourth International Conference on Computational Intelligence, Robotics and Autonomous Systems (CIRAS-2007)**, Palmeston North, New Zealand, November 28-30, 2007.
73. Program Committee Member, **The 3rd Indian International Conference on Artificial Intelligence (IICAI-2007)**, Pune, India, December 17-19, 2007.
74. Program Committee Member, **IEEE World Congress on Computational Intelligence (WCCI-2008)**. Sponsored by the IEEE Computational Intelligence Society, co-sponsored by the International Neural Network Society, Evolutionary Programming Society and the Institution of Engineering and Technology, **WCCI 2008** is composed of the **2008 International Joint Conference on Neural Networks (IJCNN 2008)**, the **2008 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2008)** and the **2008 IEEE Congress on Evolutionary Computation (CEC 2008)**, Hongkong, June 1-6, 2008.
75. International Program Committee Member, **The 2008 IEEE International Conferences on Cybernetics & Intelligent Systems (CIS 2008)**, Chengdu, China, June 3-6, 2008.
76. Program Committee Member, **The Fifth International Conference on Computational Intelligence, Robotics, and Autonomous Systems (CIRAS-2008)**, Linz, Austria, June 19-21, 2008.
77. Program Committee Member, **The First International Multi-Conference on Engineering and Technological Innovation (IMETI 2008)**, Orlando, Florida, USA, June 29-July 2, 2008.
78. Programme Committee Member, **The Third International Symposium on Knowledge Communication and Conferences (KCC-2008)**, Orlando, Florida, USA, June 29-July 2, 2008.

79. Programme Committee Member, **The 4th International Symposium on Management, Engineering and Informatics (MEI-2008)**, Orlando, Florida, USA, June 28-July 2, 2008.
80. Programme Committee Member, **The 12th World Multi Conference on Systemics, Cybernetics, and Informatics (WMSCI-2008)**, Orlando, Florida, USA, June 29-July 2, 2008.
81. Advisory Committee Member, **International Conference on Soft Skills Development and Academia Perspectives**, BITS Pilani, September 19-20, 2008.
82. Program Committee Member, **The Third International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2008)**, Adelaide, Australia, September 28-October 1, 2008.
83. Advisory Committee Member, **International Convention on Water Resources Development and Management (ICWRDM)**, BITS Pilani, October 23-26, 2008.
84. Coordinator & Resource Faculty, **Academic Development Programme in Basic Process Engineering-6 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, January 07–February 03, 2009.
85. Technical Program Committee Member, **The 4th International Conference on Autonomous Robots and Agents (ICARA 2009)**, Wellington, New Zealand, February 10-12,, 2009.
86. Coordinator & Resource Faculty, **Academic Development Programme in Basic Process Engineering-7 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, February 04–March 03, 2009.
87. Invited Main Speaker, Workshop on **Application of Advanced Tools/Techniques in Research**, BITS Pilani Goa Campus, Goa, March 6-7, 2009.
88. Resource Faculty, **Academic Development Programme in Basic Process Engineering-8 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, March 14–April 10, 2009.
89. Member, Advisory Committee, **National Workshop on Water Conservation and Sustainable Development of Society (WCSDS-2009)**, Organized by MBM Engineering College, Jai Narain Vyas University, Jodhpur & Department of Environment, Government of Rajasthan, at MBM Engineering College, Jodhpur, March 15, 2009.
90. Program Committee Member, **2009 IEEE Congress on Evolutionary Computation (IEEE-CEC-2009)**, Trondheim, Norway, May 18-21, 2009.
91. Program Committee Member, **Chinese Decision and Control Conference (CDCC-2009)**, Guilin, China, June 17-19, 2009.
92. Resource Faculty, **Academic Development Programme in Basic Process Engineering-9 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, June 29–July 24, 2009.
93. Program Committee Member, **The 2nd International Symposium on Academic Globalization (AG-2009)**, Orlando, Florida, USA, July 10-13, 2009.
94. Program Committee Member, **The 3rd International Conference on Knowledge Generation, Communication and Management (KGC-2009)**, Orlando, Florida, USA, July 10-13, 2009.
95. Program Committee Member, **The 4th International Symposium on Knowledge Communication and Conferences (KCC-2009)**, Orlando, Florida, USA, July 10-13, 2009.
96. Program Committee Member, **The 5th International Symposium on Management, Engineering and Informatics (MEI-2009)**, Orlando, Florida, USA, July 10-13, 2009.
97. Program Committee Member, **The 7th International Conference on Computing, Communications and Control Technologies (CCCT 2009)**, Orlando, Florida, USA, July 10-13, 2009.
98. Program Committee Member, **The 13th World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI-2009)**, Orlando, Florida, USA, July 10-13, 2009.
99. Program Committee Member, **The 15th International Conference on Information Systems Analysis and Synthesis (ISAS-2009)**, Orlando, Florida, USA, July 10-13, 2009.
100. Resource Faculty, **Academic Development Programme in Basic Process Engineering-10 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, August 13-September 09, 2009.
101. International Program Committee Member, **6th International Conference on Computational Intelligence, Robotics and Autonomous Systems (CIRAS-2009)**, Incheon, Korea, August 16-18, 2009.
102. International Program Committee Member, **FIRA (Federation of International Robo-Soccer Association) Robo World Congress-2009**, Incheon, Korea, August 16-18, 2009.
103. Program Committee Member, **The 2009 International Conference on Intelligent Computing (ICIC-2009)**, Ulsan, Korea, September 16-19, 2009.
104. International Program Committee Member, **International Conference on Evolutionary Computation (ICEC-2009)**, Madeira, Portugal, October 5-7, 2009.
105. Technical Program Committee Member, **The International Workshop on Bio-inspired Computing and Communications- (BICC 2009), organised in conjunction with IEEE International Conference on Ultra Modern Communications-ICUMT (ICUMT-Workshop-42)**, Saint Petersburg, Russia, October 13-14, 2009.
106. Program Committee Member, **The 4th International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2009)**, Peking University, Beijing, China, on October 16-19, 2009.
107. Program Committee Member, **The 4th Indian International Conference on Artificial Intelligence (IICAI-2009)**, Tumkur, India, December 16-18, 2009.

108. Resource Faculty, **Academic Development Programme in Basic Process Engineering-1 for the Employees of Bharat Aluminum Company Limited, Korba**, Organized by Practice School Division, BITS Pilani, February 26-March 25, 2010.
109. Program Committee Member, **The 16th International Conference on Information Systems Analysis and Synthesis (ISAS-2010)**, Orlando, Florida, USA, April 6-9, 2010.
110. Program Committee Member, **8th International Conference on Computing, Communications and Control Technologies (CCCT-2010)**, Orlando, Florida, USA, April 6-9, 2010.
111. Program Committee Member, **The SPRING 4th International Conference on Knowledge Generation, Communication and Management (KGCM-2010)**, Orlando, Florida, USA, April 6-9, 2010.
112. Advisory Committee Member, **National Conference on Environmental Conservation and Management (NCECM-2010)**, Poornima College of Engineering, Jaipur, May 10-12, 2010.
113. International Program Committee Member, **15th FIRA (Federation of International Robot Soccer Association) Robot World Cup and Congress**, Amrita Vishwa Vidyapeetham, Bangalore, May 15-19, 2010.
114. Resource Faculty, **Academic Development Programme in Basic Process Engineering-11 for the Employees of Hindustan Zinc Limited, Udaipur**, Organized by Practice School Division, BITS Pilani, June 21-July 19, 2010.
115. Resource Faculty, **Academic Development Programme in Basic Process Engineering-2 for the Employees of Bharat Aluminum Company Limited, Korba**, Organized by Practice School Division, BITS Pilani, June 25-July 22, 2010.
116. Track Chair & Program Committee Member, **4th IEEE intentional conference on Cybernetics and Intelligent Systems (CIS) and the 4th IEEE intentional conference on Robotics, Automation and Mechatronics (RAM) (IEEE CIS-RAM-2010)**, Singapore, June 28-30, 2010.
117. Program Committee Member, **The 3rd International Symposium on Academic Globalization (AG-2010)**, Orlando, Florida, USA, June 29-July 02, 2010.
118. Program Committee Member, **The SUMMER 4th International Conference on Knowledge Generation, Communication and Management (KGCM-2010)**, Orlando, Florida, USA, June 29-July 02, 2010.
119. Program Committee Member, **The 6th International Symposium on Management, Engineering and Informatics (MEI-2010)**, Orlando, Florida, USA, June 29-July 02, 2010.
120. Program Committee Member, **The International Symposium on Science 2 and Expansion of Science (S2ES-2010)**, Orlando, Florida, USA, June 29-July 02, 2010.
121. Resource Faculty, **Staff Development Programme on Innovative Teaching Techniques for Transport Phenomena** organized by ITM Universe, Gwalior, July 12-17, 2010.
122. Program Committee Member, **2010 IEEE Congress on Evolutionary Computation (IEEE-CEC-2010)**, Barcelona, Spain, July 18-23, 2010.
123. Program Committee Member, **The 2010 International Conference on Intelligent Computing (ICIC-2010)**, ChangSha, China, August 18-21, 2010.
124. Program Committee Member, **Fifth International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2010)**, Liverpool Hope University, Liverpool, September 8-10, 2010.
125. Program Committee Member, **The 7th International Conference on Computational Intelligence, Robotics and Autonomous Systems (CIRAS-2010)**, Bangalore, India, September 15-17, 2010.
126. Program Committee Member, **The Fourth International Conference on Genetic and Evolutionary Computing (ICGEC-2010)** Shenzhen, China, December 13-15, 2010.
127. Program Committee Member, **9th International Conference on Computing, Communications and Control Technologies (CCCT 2011)**, Orlando, Florida, USA, March 27-30, 2011.
128. Program Committee Member, **The 17th International Conference on Information Systems Analysis and Synthesis (ISAS-2010)**, Orlando, Florida, USA, March 27-30, 2011.
129. Program Committee Member, **The Spring 5th International Conference on Knowledge Generation, Communication and Management (KGCM-2011)**, Orlando, Florida, USA, March 27-30, 2011.
130. Program Committee Member, **IEEE SSCI (Symposium Series on Computational Intelligence) Symposium on Foundations of Computational Intelligence (IEEE-SSCI-FoCI-2011)** Paris, France, April 11-15, 2011.
131. Technical Program Committee Member, **IEEE SSCI (Symposium Series on Computational Intelligence) Symposium on Differential Evolution (IEEE-SSCI-SDE-2011)** Paris, France, April 11-15, 2011.
132. Program Committee Member, **Genetic and Evolutionary Computation Conference (GECCO-2011)**, Dublin, Ireland, July 12-16, 2011.
133. Program Committee Member, **The 4th International Symposium on Academic Globalization (AG-2011)**, Orlando, Florida, USA, July 19-22, 2011.
134. Program Committee Member, **The 7th International Symposium on Management, Engineering and Informatics (MEI-2011)**, Orlando, Florida, USA, July 19-22, 2011.
135. Program Committee Member, **The 2nd International Symposium on Science 2 and Expansion of Science (S2ES-2011)**, Orlando, Florida, USA, July 19-22, 2011.
136. Advisory Committee Member, **IEEE International Conference on Process Automation, Computing and Control (IEEE-PACC-2011)**, CIT, Coimbatore, India, July 20-22, 2011.
137. Program Committee Member, **First International Conference on Advances in Computing and Communications (ACC-2011)**, Rajagiri School of Engineering and Technology (RSET), Kochi, Kerala, India, July 22-24, 2011.

138. Organizing Co-Chair, **International Conference on IT Applications and Management: Technological Innovation and the Future of Culture and Tourism (ITAM-7)**, In Collaboration with Korea Data Base Society (Hanyang University, South Korea), JKLU Jaipur, December 28-29, 2011.
139. International Advisory Committee Member, **International Conference on Soft Computing for Problem Solving (SocProS-2011)**, IIT Roorkee, December 20-22, 2011.
140. Program Committee Member, **Genetic and Evolutionary Computation Conference (GECCO-2012)**, Philadelphia, USA, July 07-11, 2012.
141. Advisory Committee Member, **Conference on Technological Advancements in Chemical and Environmental Engineering (TACEE-2012)**, BITS Pilani, Pilani, March 23-24, 2012.
142. General Chair, **2nd International Conference on Soft Computing for Problem Solving (SocProS-2012)**, JK Lakshmi Pat University, Jaipur, December 28-30, 2012.
143. Organizing Co-Chair, **JKLU-CoM-2013: Conference on Management – Management Innovations: Challenges and Opportunities for Sustainable Development**, JK Lakshmi Pat University, Jaipur, February 22-23, 2013.
144. Programme Committee Member, **International Conference on Global Innovations in Technology and Sciences (ICGITS-2013)**, SAINTGITS College of Engineering, Kottukulam Hills, Kerala, April 04-06, 2013.
145. Programme Committee Member, **IEEE Symposium on Foundations of Computational Intelligence 2013 (FoCI-2013)**, organized by 2013 IEEE Symposium Series on Computational Intelligence (IEEE-SSCI-2013), Grand Copthorne Waterfront Hotel, Singapore, April 15-19, 2013.
146. Programme Committee Member, **42nd IFTDO (International Federation of Training and Development Organizations) World Conference & Exhibition**, The Ashok, Chanakyapuri, New Delhi, April 23-26, 2013.
147. International Program Committee Member, **International Conference on Evolutionary Computation Theory and Applications (ECTA-2013)**, Vilamoura, Algarve, Portugal, September 20-22, 2013.
148. Advisory Board Member, **The First International Conference on Emerging Trends, Technology and Research (ICETTR-2013)**, Nagpur, September 21-22, 2013.
149. National Advisory Committee Member, **9th Annual Session of Students' Chemical Engineering Congress (SCHEMCON-2013)**, MVGR College of Engineering, Vizianagaram, September 27-28, 2013.
150. Advisory Committee Member, **ISTD Northern Regional Conference on HR Manthan: A Discourse on Organisation and Social Excellence**, ISTD Dehradun Chapter, November 22-23, 2013.
151. Resource Faculty, **6-Day DST-SERB School on Evolutionary Techniques for the Optimization of Chemical Engineering Systems**, University of Petroleum and Energy Studies (UPES), Dehradun, March 24-29, 2014.
152. International Advisory Committee Member, **National Conference and Workshop on Sustainable Manufacturing: For a Brighter Future (NCSM-2015)**, Malaviya National Institute of Technology (MNIT), Jaipur, January 2-4, 2015.
153. Advisory Committee Member, **IEEE International Seminar on Solar Energy (ISSE-2015)** organized by Department of Electrical and Electronics Engineering & Department of Mechanical Engineering, Galgotias College of Engineering and Technology, Greater Noida, February 20-21, 2015.
154. Advisory Committee Member, **IEEE International Conference on Energy, Economics and Environment (ICEEE-2015)** organized by Department of Electrical and Electronics Engineering, Galgotias College of Engineering and Technology, Greater Noida, March 27-28, 2015.
155. Patron, **International Conference on Computing, Communication and Automation (ICCCA-2015)**, Galgotias University, Greater Noida, Uttar Pradesh, India, May 15-16, 2015.
156. Advisory Board Member, **1st International IEEE Conference on Next Generation Computing Technologies (NGCT-2015)** organized by University of Petroleum and Energy Studies (UPES), Dehradun, September 4-5, 2015.
157. Advisory Board Member, **National Youth Wellness Festival**, organized by IHF Wellness Orbitarium, Nagpur, October, 2015.
158. Advisory Board Member, **1st International Conference on Dynamic Governance: Sociocracy Emerging Trends and Challenges (ICDGS-2016)**, National Law University, New Delhi, February 11-12, 2016.
159. Advisory Committee Member, **National Doctoral Thesis Conference on Recent Trends in Information & Communication Technology (DTC-ICT 2016)**, University of Petroleum and Energy Studies (UPES), Dehradun (India), July 09-10, 2016.
160. Advisory Committee Member, **2nd International Conference on Next Generation Computing Technologies (NGCT-2016): Current and Future Trends**, University of Petroleum and Energy Studies, Dehradun (India), October 14-16, 2016.
161. Advisory Board Member, **2nd IEEE International Conference on Recent Advances and Innovations in Engineering (ICRAIE- 2016)**, Poornima College of Engineering and Poornima University, Jaipur, Rajasthan, India, December 23-25, 2016.

Sessions Chaired in Seminars / Conferences:

1. Chairman, Technical Session-III (Energy Integration in Distillation Columns), **Seminar and Intensive Course on Process Control and Simulation for Chemical and Metallurgical Industries**, BITS Pilani, April 4-7, 1997.
2. Chairman, Technical Session-III, **Seminar and Intensive Course (SIC-2001) on Novel Separation Techniques and their applications to Indian Chemical Industries**, BITS Pilani, March 21-23, 2001.

3. Panel Discussion on Bio-mass Gasification at the **Intensive Workshop on Testing Evaluation of Biomass Gasifier Systems and Related Laboratory Investigations** organized by Sardar Patel Renewable Energy Research Institute (SPRERI), Vallabh Vidyanagar, April 11-14, 2001.
4. Chairman, Technical Session-IV (Consisting of a Keynote Address on "Pervaporation—a low energy alternative to distillation" by Prof V G Pangarkar-UDCT Mumbai, an Invited Talk on "Eco-Friendly fuels of new millennium by quality improvement and by alternate fuel" by Dr G K Ghoshal-LIT Nagpur, and 5 Technical Papers), **National Seminar on Eco-Friendly Chemical Technologies in New Millennium** organized by UDCT, Amravati University, Amravati, February 7-8, 2002.
5. Co-Chairman, Technical Session-III (Consisting of a Keynote Address on "Emerging Eco-Friendly Technologies for Pulp and Paper Industry" by Dr J D Dhake-Principal, AEC, Chikhali, and 7 Technical Papers), **National Seminar on Eco-Friendly Chemical Technologies in New Millennium** organized by UDCT, Amravati University, Amravati, February 7-8, 2002.
6. Chairman, Paper Presentation Session, **35th Engineers' Day—Theme: Indian Small Scale Industries in Globalization Scenario**, BITS Pilani, September 16, 2002.
7. Chairman, Paper Presentation Session, **36th Engineers' Day—Theme: Improvement in Values in Engineering Profession**, BITS Pilani, September 15, 2003.
8. Chairman, Session on "Theory of Evolutionary Algorithms (Fr1-SR04: J)", **2003 Congress on Evolutionary Computation (CEC-2003)**, Canberra, Australia, December 8-12, 2003.
9. Chairman, Special Session on "Evolutionary Computation", **The Second International Conference on Computational Intelligence, Robotics, and Autonomous Systems (CIRAS-2003)**, National University of Singapore, Singapore, December 15-17, 2003.
10. Chairman, Session on "Evolutionary Algorithms 2 (PS05)", **The Second International Conference on Computational Intelligence, Robotics, and Autonomous Systems (CIRAS-2003)**, National University of Singapore, Singapore, December 15-17, 2003.
11. Chairman, Technical Session-3A, National Conference on **Energy Management in Changing Business Scenario (EMCBS-2005)**, BITS Pilani, October 8-9, 2005.
12. Chairman, Chemical Engineering Session, **International Congress of Chemistry and Environment (ICCE-2005)**, Research Journal of Chemistry and Environment, Indore, December 24-26, 2005.
13. Chair Person, Session-I, Plenary Lecture-II, "Drug Discovery & Development in 21st Century: Challenges & Opportunities" by Dr B K Trivedi, CSO, DDR, Wockhardt Limited, **National Symposium on Challenges in Drug Discovery Research: Networking Opportunities between Academia & Industries**, BITS Pilani, April 7-8, 2006.
14. Chair Person, Symposium 5.1: Immunology of bacterial and viral diseases, **33rd Indian Immunological Society Conference**, AIIMS New Delhi, January 28-31, 2007.
15. Chairman, PTs III - Plenary Talks (Robotics), **International Conference on Emerging Mechanical Technology-Macro to Nano (EMTM2N-2007)**, BITS Pilani, February 16-18, 2007.
16. Chairman, Session XX, **International Conference on the Interface of Chemistry-Biology in Biomedical Research (ISBCB-2008)**, BITS Pilani, February 22-24, 2007.
17. Chairman, Session I, **Photonic Polymers: Materials, Devices and Applications (PPMDA-2008)**, BITS Pilani, April 03-04, 2008.
18. Expert Member, **Curriculum Workshop**, Structure development for B.Tech & M.Tech programmes in Chemical Engineering, MNIT, Jaipur, May 24-25, 2008.
19. Chairman, Session V: Technology and Etiquettes, **International Conference on Soft Skills Development and Academia Perspectives**, BITS Pilani, September 19-20, 2008.
20. Expert Member, **Workshop to draw an action plan for its newly started B.Tech (Chemical Engineering) Programme**, Banasthali University, Banasthali Vidyapeeth, May 3-4, 2009.
21. Chairman, Session B1, **International Conference on Soft Computing for Problem Solving (SocProS-2011)**, IIT Roorkee, December 20-22, 2011.
22. Chairman, Session on Contemporary Computing and Data Transmission Techniques, **International Conference on IT Applications and Management: Technological Innovation and the Future of Culture and Tourism (ITAM-7)**, JKLU Jaipur, December 28-29, 2011.
23. Chairman, Technical Session-1: Modeling, Simulation, Optimization and Control, **Conference on Technological Advancements in Chemical and Environmental Engineering (TACEE-2012)**, BITS Pilani, Pilani, March 23-24, 2012.
24. Chairman, Concluding Session, **Essentials of Engineering for Future Managers**, Poornima Group of Colleges, Jaipur, March 26-27, 2012.
25. Chairman, Technical Session-1, **First International Conference on Emerging Trends and Technology (ICETT-2012)**, hosted and technically sponsored by ACCENT (Association of Computer Communication Education for National Triumph), Social and Welfare Society, Sayaji Hotel, Indore, December 15-16, 2012.
26. Chairman, Technical Sessions, **International Conference on "Emerging Trends, Techniques and Research" (ICETTR-2013)**, Hotel Pride, Nagpur, September 21-23, 2013.
75. Chairman, Technical Session-I, **International Conference on Convergence Technologies Management 2015 (ICT-2015)**, Suresh Gyan Vihar University, Jaipur, March 26-27, 2015.

76. Chairman, Technical Session, **3rd International Conference on Contemporary Issues on Information Technology & Management (ICITM-2016)**, organized by Nehru College of Management-Coimbatore, My Hotel, Bukit Bintang, Kuala Lumpur, Malaysia, March 09-10, 2016.

Working Computer Knowledge:

- | | |
|-----------------------------|---|
| 1. Languages | : FORTRAN, BASIC, PASCAL, C & C++, Visual Studio |
| 2. Word Processing Packages | : Latex, MS-Word |
| 3. Professional Packages | : HYSYS, ASPEN+, FLUENT, GAMBIT, MATLAB, IMSL Sub-routines, MS-Office, ORIGIN, NAG Routines |
| 4. Operating Systems | : DOS, UNIX, NOS-VE, Windows |
| 5. Main Frame Computer | : CDC-CYBER 180/840 |
| 6. Super Computer | : PARAM-10000 |

Short Term Courses Attended:

1. "Small Industry Orientation Training Program" conducted by Small Industry Extension Training Institute (SIETI, Government of India Society), Hyderabad (AP), March 27-29, 1983.
2. QIP Winter School on "Industrial Pollutants and their management" organized by Chemistry Department, IIT Delhi, December 4-18, 1986.
3. ISTE Summer School on "Mineral Resource Appraisal and Development" organized by Mining Engineering Department, IIT Kharagpur (WB), May 25-June 5, 1987.
4. ISTE Summer School on "Microprocessor Applications" organized by Department of Instrumentation and Control Engineering, NSS College of Engineering, Palghat (Kerala), May 16-28, 1988.
5. ISTE Winter School on "Maintenance Management" organized by Production Engineering Department, Annamalai University, Annamalaiagar (TN), December 5-16, 1988.
6. ISTE Summer School on "Recent Developments in Heat Exchangers" organized by Mechanical Engineering Department, IIT Madras (TN), June 5-16, 1989.
7. ISTE Workshop on "Industry-Institute Partnership" organized by ISTE Chapter at DDIT Nadiad (Gujarat), April 25-27, 1994.
8. QIP Summer School on "Advances in the Production of Petrochemicals" organized by Chemical Engineering Department, University of Roorkee, Roorkee (UP), June 21-July 5, 1994.
9. "Intrabits Site Training Programme" organized by Centre for Software Development, BITS Pilani, February 7-12, 2000.

Seminars / Symposia / Workshops / Conferences Attended:

1. 35th Annual Session of IChE (CHEMCON-82), A.U.College of Engineering, Waltair, December 16-19, 1982.
2. All India Seminar on "Risk Management and Public Liability Insurance" jointly organized by IChE Ahmedabad & Baroda Regional Centers and The Oriental Insurance Company Limited, Ahmedabad, Bhaikaka Bhawan, February 14, 1987.
3. Program on "Educational Utilization of Indian Standards in Chemical Engineering" organized by Bureau of Indian Standards, Express Hotel, Baroda, September 26, 1987.
4. National Seminar on "Chemical Industry: Past, Present and Future" organized by IChE Western Region (Bombay, Baroda, Pune, Ahmedabad, and Nagpur) on the eve of Dr HL Roy Birth Centenary Celebrations, Taj Mahal Hotel, Bombay, September 14, 1990.
5. Seminar on "Challenges for Chemical Engineers in India over the next decade" organized by Chemical Engineering Association (ChEA) of IIT Bombay (Silver Jubilee Meeting), Lecture Theatre, IIT, Bombay, March 16, 1991.
6. 44th Annual session of IChE (CHEMCON-91), "Radial liquid distribution studies in trickle-bed columns", A.C.College of Technology, Madras, December 18-21, 1991.
7. ChEA Annual Seminar on "Petrochemicals-2000" organized by Chemical Engineering Association of IIT Bombay, Lecture Theatre, IIT Bombay, September 12, 1992.
8. Eighth Symposium on "Lubricants Additives Waxes & Petroleum Specialty Products (8th LAWSPSP Symposium)", IIT Bombay, January 21-23, 1993.
9. One day Seminar on "Recycling of Industrial Waste-Recent trends" organized by DDIT Alumni Association, DDIT Nadiad, March 20, 1993.
10. 47th Annual session of IChE (CHEMCON-94), IIT Kharagpur, December 14-17, 1994.
11. Workshop on "Project Finance" organized by DDIT Alumni Association, DDIT Nadiad, June 16, 1996.
12. 14th National Conference of Environmental Engineers, "Positive Decision making in waste management towards achieving sustainable development-A Perspective", Institution of Engineers (India), AP Centre, Hyderabad, August 7-9, 1998.
13. 51st Annual Session of IChE (CHEMCON-98), AU College of Engineering, Visakhapatnam, December 16-19, 1998.

14. One-Day Workshop on "Passive Solar Architecture" organized by Centre for Renewable Energy & Environment Development (CREED) & Ministry of Non-conventional Energy Sources (MNES), Government of India, BITS Pilani, February 23, 1999.
15. Second Meeting of Vice Chancellors/Directors of Indian & Nepalese Universities, supported by B.P. Koirala Indo-Nepal Foundation, BITS Pilani, April 2-3, 1999.
16. 52nd Annual Session of IChE (CHEMCON-99), "1. Genetic Algorithms for Estimating Heat Transfer Parameters in Trickle Bed Reactors" and "2. Automated Design of Heat Exchangers using Artificial Intelligence based Optimization", Panjab University, Chandigarh, December 20-23, 1999.
17. 53rd Annual Session of IChE (CHEMCON-2000), "1. Evolutionary Computation strategy for optimization of an Alkylation Reaction" and "2. Adaptive networks for Fault Diagnosis and Process Control" [Adjudged the BEST PAPER presented in the Technical Session (Miscellaneous) at the above Conference], Science City, Calcutta, December 18-21, 2000.
18. Workshop on "Women and Development in India – Issues & Challenges" jointly organized by BITS–Pilani & Rajasthan State Commission for Women (RSCW) – Jaipur (supported by UNICEF & IREDA), BITS Pilani, January 19-20, 2001.
19. Intensive Workshop on "Testing Evaluation of Biomass Gasifier Systems and Related Laboratory Investigations" organized by Sardar Patel Renewable Energy Research Institute (SPRERI), Vallabh Vidyanagar, April 11-14, 2001.
20. 54th Annual Session of IChE (CHEMCON-2001), "1. Optimization of Thermal Cracker Operation using Differential Evolution" and "2. Evolutionary Computation for Scenario-Integrated Optimization of Dynamic Systems" (Adjudged the SECOND BEST PAPER presented in the 'Modeling Simulation and Control Session' at the above Conference), CLRI, Chennai, December 19-22, 2001.
21. 2-day National Seminar on Eco-friendly Chemical Technologies in New Millennium, "Eco-friendly chemical technologies in new millennium (Keynote Address as Chief Guest)", UDCT, Amravati University, February 7-8, 2002.
22. International Conference on "Population, Development and Environment" organized by BITS-Pilani (supported by UNPF, IIPS & UGC), "A Model for Efficient Resource Utilization: Development and Validation", BITS-Pilani, March 15-16, 2002.
23. Joint International Conference of 4th Asia-Pacific Conference on Simulated Evolution And Learning (SEAL'02), 9th International Conference on Neural Information Processing (ICONIP'02) & International Conference on Fuzzy Systems and Knowledge Discovery (FSKD'02), Organized by: School of Electrical and Electronic Engineering, Nanyang Technological University – Singapore, Sponsored by: Asia-Pacific Neural Network Assembly SEAL & FSKD Steering Committees, Lee Foundation, In Co-Operation with: IEEE Neural Network Council, International Neural Network Society European Neural Network Society & SPIE, "A Differential Evolution Approach for Global Optimization of MINLP Problems", Orchid Country Club, Singapore, November 18–22, 2002.
24. Workshop on Conflict Transformation and Citizens' Diplomacy, organized by BITS-Pilani and Center for International Development and Conflict Management, University of Maryland, "Subtle Inner Self-understanding vs. Gross Outer Materialistic Awareness for Peace, Conflict Resolution and Development", BITS Pilani, October 30–November 1, 2003.
25. International Conference on Desert Technology (DT-7), "Influence of Product Yields, Density, Heating Conditions, and Conversion on Pyrolysis of Biomass (Keynote Speaker)", Umaid Bhawan Palace, Jodhpur, November 9-14, 2003.
26. Curriculum Development Cell Workshop on Heat Exchangers Design and Optimization, "Optimal Design of Heat Exchangers using Evolutionary Computation Techniques (Distinguished Speaker)", IIT Delhi, March 26, 2004.
27. SERC School / CEP Course on Process Optimization, Data Driven Modeling and Advanced Process Control, "Global Optimization using Stochastic Search Methods (Distinguished Speaker)", IIT-Bombay, Mumbai, August 16-20, 2004.
28. Workshop on Energy Saving in Steam Systems organized by Centre for Renewable Energy and Environmental Development (CREED), BITS Pilani and Thermax Babcock and Wilcox Limited, Pune, "Energy Integration Analysis", BITS Pilani, April 26-30, 2005.
29. International Conference on Life Cycle Assessment and Life Cycle Management Methodologies, "Life Cycle Inventory Analysis (LCIA) (Keynote Speaker)", The Boulevard, Kuala Lumpur, Malaysia, December 4-5, 2006.
30. National Seminar on Bio Films: Challenges & Applications, Bharatiya Vidya Bhavan's Bhavan' Research Center in Collaboration with University of Mumbai - Sesquicentennial Celebrations, "Biofilms in the Removal of VOCs and Foul Odors (Keynote Speaker)", Mumbai, January 12-13, 2007.
31. Indo-US Workshop on Advances in Computational Optimization and Analysis of Systems, "Improved Differential Evolution for Single- and Multi-Objective Optimization: MDE, MODE, NSDE, and MNSDE (Invited Distinguished Speaker)", Indian Institute of Technology (IIT), Kanpur, February 07-09, 2007.
32. Workshop on Advanced Heat and Mass Transfer for the Employees of Engineers India Limited (EIL) New Delhi, "1. Energy Integration Analysis (HENS): Pinch Technology", "2. Mass Transfer Operations", "3. Energy Conservation Measures in Distillation" and "4. Produced Wastewater-Treatment Technologies", EIL-New Delhi, October 12-13, 2007.
33. One-day follow up discussion meeting on New Research directions in the use of power beams for environmental applications (RPDM-PBEA-2007) to a Symposium on "Power beams for clean environment and processes" organized by Laser & Plasma Technology Division of Bhabha Atomic Research Centre (BARC), "Chemical kinetics and dynamics of plasma assisted pyrolysis of assorted, non nuclear waste (Invited Distinguished Speaker)", Mumbai, September 18, 2007.
34. International Conference on Gas-Liquid and Gas-Liquid-Solid Reactor Engineering (GLS-8), "Lateral Mixing in Trickle Bed Reactors", IIT-Delhi, New Delhi, India, December 16-19, 2007.
35. Curriculum Workshop, Structure development for B.Tech & M.Tech programmes in Chemical Engineering, Invited Expert Member, MNIT, Jaipur, May 24-25, 2008.

36. Assessors' Interaction Meeting for professional educational experts, Invited Peer Team Member, National Assessment and Accreditation Council (NAAC), Bangalore, October 23-24, 2008.
37. Indo-French Workshop on Biohydrogen Production under the aegis of Indo French Center for Promotion of Advance Scientific Research, organized by The Energy and Resources Institute (TERI)-New Delhi, "Biohydrogen-A Clean and Green Energy: Economic Perspective & Optimization Strategies (Invited Speaker)", Hotel Jaypee Manor, Mussoorie, November 6-8, 2008.
38. Indo-US Workshop on Materials Design: Measurement, Modeling and Informatics, organized jointly by School of Materials Science and Engineering, Bengal Engineering and Science University (BESU)-Shibpur and Combinatorial Sciences and Materials Informatics Collaboratory (CoSMIC-IMI), Iowa State University-USA with the support of Tata Steel-Jamshedpur and Stanley Foundation-USA, "Modeling and Evolutionary Optimization for Manufacturing Processes of Polymeric Materials (Invited Speaker)", Kolkata, January 5-7, 2009.
39. Workshop associated with 'National Mission Project on Education through ICT, initiated and sponsored by MHRD (GOI), for developing suitable pedagogical methods for various classes, intellectual calibers and research in e-learning', IIT Kharagpur-Kolkata Campus, Salt Lake City, Kolkata, October 8-9, 2009.
40. Workshop on Application of Advanced Tools/Techniques in Research, "1. Modelilng & Simulation", "2. Traditional Optimization Techniques and their limitations", "3. Population-based search algorithms for optimization", and "4. Energy Integration Analysis" (Invited Speaker), BITS Pilani Goa Campus, Goa, March 6-7, 2009.
41. Workshop on Process Modeling and Simulation, University of Petroleum and Energy Studies (UPES), "Invited Talks on Process Modeling & Simulation, and Population-based search algorithms for single- and multi-objective optimization", Dehradun, November 6-7, 2009.
42. Staff Development Programme on Innovative Teaching Techniques for Transport Phenomena, "Introduction to Transport Phenomena" and "Energy Integration Analysis (Chief Guest and Keynote Speaker)", ITM Universe, Gwalior, July 12-17, 2010.
43. ASSOCHAM Seminar on "The vision of a New Vibrant India", Vigyan Bhavan, Maulana Azad Road, New Delhi, July 19, 2013.
44. "2nd World Summit on Accreditation (WOSA-2014)", The Hotel Ashoka, New Delhi, March 8-10, 2014.
45. "European Higher Education Fair India 2014", European Union, NSIC Exhibition Complex, Ring Road, Okhla Phase 3, Near Govindpuri Metro Station, New Delhi, November 30, 2014.
46. "ABET Accreditation and Program Assessment Workshop (Preparing Self Study Report for next cycle)", ABET in association with IEEE Education Society, India Council, JW Marriott Hotel, New Delhi Aerocity, September 30, 2015.
47. "North Zone Vice Chancellors' Meet-2015-16", National Law University, Dwarka, Delhi, December 19-20, 2015.
48. "Third World Summit on Accreditation (WOSA 2016)", Theme: Quality Assurance through Outcome based Accreditation, Leela Ambience Hotel and Residences, Gurgaon, March 18-20, 2016.
49. The "Women Economic Forum 2016", organized by All Ladies League (ALL) & Women Economic Forum (WEF), Pullman-Novotel Hotel, Aerocity, New Delhi, India, May 16-21, 2016.
50. NAFSA-2016 (Association of International Educators: National Association of Foreign Student Advisers), International Conference & Expo, Denver, USA, May 29-June 03, 2016.
51. FICCI Higher Education Summit (HES) 2016, Vigyan Bhavan, New Delhi, November 10-12, 2016.

Extra-Curricular Activities:

1. Singing, Music Composition, and Playing Guitar lead & CASIO Keyboard.
2. Organizing Committee Member, Cultural Activities Committee, DDIT Nadiad, 1993-96.
3. Convener, DDIT News Letter, DDIT Nadiad, 1995-96.
4. Quiz Master, Technical Quiz Competition organized for The Institution of Engineers (India) Students' Chapter, DDIT Nadiad, 1988-89.
5. Conducting Technical Quiz Competitions, Group Task, and Group Discussion on various topics for students, 1985-96.
6. Organized Industrial Visits and Tours for the students of Chemical Engineering Department, DDIT Nadiad, 1985-96.
7. Judge, Fifth Inter-Bhawan Debate Competition on "Value based rather than Skill based Education provides the foundation for Nation Building", organized by National Service Scheme (NSS) & Vivekananda Seva Samiti (VSS), BITS Pilani, February 1, 1997.
8. Professor-in-charge, Andhra Samiti, BITS Pilani, 1997-2001.
9. Judge, Technical Exhibitions of Engineering Disciplines, APOGEE (A Professions Oriented Gathering over Educational Experiences), A Nation-wide Academic Week held every year during October, BITS Pilani.
10. Judge, Technical Paper Presentation Sessions, APOGEE, BITS Pilani.

Software Packages Developed:

1. **Evolutionary Computation** Algorithms (Simulated Annealing-**SA**, Genetic Algorithms-**GA**, and Differential Evolution-**DE**) for optimization of various non-linear chemical processes. Codes developed for DE, various DE Strategies, Modified DE (**MDE**), Hybrid DE (**HDE**), Trigonometric DE (**TDE**), etc.
2. Computer codes in C, C++, and MATLAB for **Multi-objective optimization** of various engineering problems & test problems using **MODE** (multi-objective differential evolution) and its variants such as **MODE-1**, **MODE-2**, **MODE-3**,

- Non-dominated Sorting DE (**NSDE**), Modified NSDE (**MNSDE**), Trigonometric MODE (**T-MODE**), Elitist-MODE (**E-MODE**), Hybrid-MODE (**H-MODE**), etc.
3. Menu-driven Software Package for the **Design of Piping Systems** with huge database for roughness parameters and frictional losses for various fittings, joints, and valves.
 4. User-friendly Software Package for the **Design of Packed and Tray Absorption Columns** with huge database for physical properties and packing factors.
 5. Software Package for **Heat Exchanger Network Synthesis**.
 6. Design of **Azeotropic Distillation Column** incorporating **UNIFAC & UNIQUAC Models** for estimating VLE data.
 7. **DataBase for Chemical Engineering Systems**.
 8. Design of **Single- and Multiple-effect Evaporators**.
 9. Software Package for the **Design and Simulation of Agitators**.
 10. Computer Aided Design of **Flares**.
 11. Expert Systems for **Fault Diagnosis**.
 12. Software Package for **Plate-and-Frame Heat Exchangers**.
 13. **Artificial Neural Networks** for temperature control in Plate-and-Frame Heat Exchanger.
 14. Computer-Aided **Energy Integration Analysis**.
 15. Software Package for the **Design of Shell-and-Tube Heat Exchangers**.
 16. Specific Purpose Simulation Package for **Adsorption for Wastewater treatment**.
 17. Dynamic Simulation Package for **Biomass Gasification**.
 18. Software Packages for **Tearing Algorithms in Decomposition of Networks**.
 19. Specific Purpose Simulation Package for **Ammonia Synthesis Reactor**.

Supervision of PhD Doctoral Work: 13

S.No.	Title of the Thesis	Name & ID of the Candidate	Date of Completion
1.	Modeling for Wastewater Treatment by Adsorption using Analytical-, Regression- and Neural Network-Approaches.	V Ramakrishna 1997PHXF405	November 2004
2.	Evolutionary Computation for Optimization of Selected Non-linear Chemical Processes.	Rakesh Angira 2000PHXF011	January 2006
3.	Modeling, Simulation and Optimization of Pyrolysis of Biomass.	Ashish S Chaurasia 2001PHXF404	March 2004
4.	Theoretical & Experimental Investigations for Removal of Pollutants using Adsorption.	Suresh Gupta 2003PHXF008	October 2008
5.	Modeling, Simulation, and Experimental Studies on Downdraft Biomass Gasifier.	Sheth Pratik Nitinchandra 2003PHXF009	December 2009
6.	Studies on Biodegradation and Biofiltration for Removal of Volatile Organic Compounds.	Smita Raghuvanshi 2003PHXF408	June 2010
7.	Pareto Optimal Solutions in Process Design Decisions Using Evolutionary Multi-objective Optimization.	Ashish M Gujarathi 2004PHXF415	July 2010
8.	Recovery of Energy and Useful Products from Gelatin Waste.	S Saravana Sampath 2003PHXF027	Ongoing
9.	Intensification of Recovery of Carboxylic Acids Using Reactive Extraction.	Sushil Kumar 2005PHXF001	June 2010
10.	Studies on RGA Analysis for Control Configuration Selection of Decentralized Multivariable Nonlinear Chemical Processes.	Amit Jain 2006PHXF424	September 2015
11.	Optimal Design and Synthesis of Heat Exchanger Networks.	Kapender Phogat 2011PhDENG002	Ongoing
12.	Cloud Service Brokering: Optimization in Provision of Autonomic Cloud Services.	Prashant Khanna 2011PhDENG005	Ongoing
13.	Optimization of Information Retrieval In Big Data Using Evolutionary Computation	Shadab Irfan 15SCSE301001	Ongoing

Supervision of ME Dissertation Work: 36

S.No.	Title of the Project	Name of the Candidate	Date of Completion
1.	Computational Fluid Dynamics Simulations of Multiphase Reactors.	P Srinadh	December 2008
2.	Evolutionary Optimization of Heat Integrated Distillation Column.	V Praneet Reddy	December 2007
3.	Optimization, Simulation, and Modeling of a Process Plant Using HYSYS.	Mansoor Rahaman Mohammed	May 2007
4.	Desalination of Brackish and Gray Water.	Chaudhari Vinod Bhagwan	May 2007
5.	Application of Non-Traditional Optimization Techniques for the Design of Complex Non-linear Chemical Processes.	Aditya Sarin	December 2006
6.	Evolutionary Strategies for Optimal Design of Non-Linear Complex Chemical Processes.	Ameen Shadab Syed Zahiruddin	December 2006
7.	Computational Fluid Dynamics for Fluid Flow and Heat Transfer Characteristics in Packed Bed Reactors.	Amol A Deshpande	May 2006
8.	RTD Studies in Continuous Flow Reactors Using Computational Fluid Dynamics.	K Jayadeep	May 2006
9.	Multi-objective Differential Evolution for finding out the Pareto-Optimal Front.	Tejasvini Kulkarni	December 2005
10.	Modeling, Simulation, and Optimization of Reactive Distillation.	Muzaffar Mahmood Khan	December 2005
11.	Genetic Programming for Optimization of a Chemical Process System.	Karthik S	December 2005
12.	Multi-objective Optimization of Wet Film PET Reactor Using Population Based Search Techniques.	Syed Mubeen J H	May 2004
13.	Multi-objective Optimization of Styrene Reactor Design Using Evolutionary Approaches.	Pallavi Gajananrao Chakole	May 2004
14.	Multi-objective Optimization of Fluidized Catalytic Cracking Unit Using Evolutionary Strategies.	B Anbarasu	May 2004
15.	Modeling and Simulation for the Optimal Design of Biomass Gasifier.	Amanpreet Kaur	May 2003
16.	Multi-objective Optimization using Evolutionary Algorithms.	M Mathew Leenus Jehan	May 2003
17.	Studies on Adsorption of Volatile Organic Compounds using Bio-filtration.	Smita Raghuvanshi	May 2003
18.	Techno-Economic Analysis of the Production Techniques of Hydrogen for Fuel Cells.	Sonny Sachdeva	December 2002
19.	Modeling, Simulation and Design of Nanotubes for Hydrogen Storage	Amit Ashok Gaikwad	December 2002
20.	Modeling of Pyrolysis in Biomass Gasification.	Gaurav Mishra	December 2002
21.	Studies on Bagasse based Cogeneration.	Manish N Mundada	May 2002
22.	Studies on Production of Useful Products from Bagasse.	Ashish M Gujrathi	May 2002

23.	Differential Evolution for Optimization of a Continuous Pulsed Corona Reactor.	Shishir K Haldulkar	December 2001
24.	Studies on Biomass Gasification.	V Thiruchitrabalam	December 2001
25.	Studies on Periodic Operation of a Trickle Bed Reactor.	Pradip B Dhamole	December 2001
26.	Studies on Hydrodynamics and Heat transfer aspects in Trickle Bed Reactors.	Ravindra P Marathe	December 2000
27.	Modeling & Simulation of Membrane Reactors.	Samir R Kale	December 2000
28.	Expert Systems for the Optimal Design of Heat Exchangers (Differential Evolution).	S A Munawar	May 2000
29.	Optimization and Synthesis of Heat Integrated Distillation Column Sequences using Differential Evolution.	Rishindra Pal Singh Vizen	December 1999
30.	Expert Systems for the Optimal Design of Heat Exchangers (Genetic Algorithms).	S A Munawar	December 1999
31.	Studies on Residence Time Distribution and Heat Transfer in Trickle Bed Reactors.	Rakesh Angira	December 1999
32.	Expert Systems for the Optimal Design of Heat Exchangers (Simulated Annealing).	S A Munawar	May 1999
33.	Hydrodynamics and Heat Transfer in Trickle Bed Reactors (Experimental Studies & Analysis of Results).	S D Manjare	December 1998
34.	Hydrodynamics and Heat Transfer in Trickle Bed Reactors (Experimental Setup Installation with Data Acquisition System).	S D Manjare	May 1998
35.	Hydrodynamics and Heat Transfer in Trickle Bed Reactors (Design & Fabrication of Experimental Setup).	S D Manjare	December 1997
36.	Fuzzy Logic Control of an Absorption Column for Air-Carbon Dioxide-Sodium Hydroxide System.	S Phani Madhav	May 1997

Supervision of BE Thesis Work: 38

S.No.	Title of the Project	Name of the Student	Date of Completion
1.	Process Intensification of Biochemical Processes.	Tarun Rajan Mavelly	May 2010
2.	Nano Adsorption For Pollution Abatement	G Prashanth	May 2010
3.	Energy Integration in Distillation Column.	Swamy Shanti Kumar P	December 2009
4.	Green Organizations through Footprints and Technological Solutions.	Abhishek Humbad	May 2009
5.	Modeling, Simulation, and Optimization of a Complex Chemical Process.	G Kranti Priyaker	May 2009
6.	Artificial Neural Networks for Control Strategies of a Chemical Process.	Raghuram Thyagarajan	December 2008
7.	Medical Waste Management: Challenges and Imperatives.	Snehil Sethia	December 2008
8.	Techno-Economic Analysis of Pulp and Paper Industry.	Pragati Bhadauria	December 2008
9.	Evolutionary Approach for the Optimal Design of Heat Exchanger.	B P V N S Manikantha	December 2007

10.	Modeling of Packed Bed Distillation Column Using Artificial Neural Networks.	T V Shashank	December 2007
11.	Artificial Neural Networks for Process Modeling, Design, and Optimization.	Marotkar Manish Keshao	May 2007
12.	Vacuum Membrane Distillation for Desalination of Water.	Pradeep Reddy E.	May 2007
13.	Application of Optimization Tools and Techniques to Management Problems.	Prashant Gullapalli	December 2006
14.	Process Modeling and Control via Artificial Neural Networks.	Siddarth D Shetty	December 2006
15.	Evolutionary Computation Strategies for Multi-objective Optimization.	Ms K Krishna Priya	May 2005
16.	Modeling and Simulation of Adsorption for Pollutant Removal.	Ms Archana S	December 2004
17.	Nuclear & Hazardous Waste Management.	S Karthik	May 2004
18.	Modeling and Simulation of Membrane Reactors.	Aravind Gattu	May 2003
19.	Waste Water Treatment by Adsorption Technique.	S S Ravikumar	December 2002
20.	Evolutionary Computation for Dynamic Optimization of Thermal Cracking Operation.	Avinash Modi	May 2002
21.	Differential Evolution for Multi-Objective Optimization of Industrial Hydrogen Plants.	L Satish	December 2001
22.	Evolutionary Computation for Mass Exchanger Network Synthesis.	Venugopala Rao Gavini	May 2001
23.	Analysis of Combined Heat and Power to Total Site Integration.	V Bhaskar	May 2001
24.	Mathematical Programming Formulations for Heat Exchanger Network Synthesis.	Ch China Koti Reddy	May 2001
25.	Heat Exchanger Network Synthesis using Dual Approach Temperature.	Tushar Prakash Suchak	May 2000
26.	Pollution Prevention Evaluation using Life Cycle Analysis.	N Sunil Kumar Reddy	May 2000
27.	Conceptual Programming Approach for Energy Integration with Hyper Targets.	Ms Meena Kaul	May 2000
28.	Adaptive Neural Networks for Fault Diagnosis and Process Control.	M Shailesh	December 1999
29.	Expert Systems based Optimization for an Alkylation Process.	Gaurav Chaturvedi	December 1999
30.	Simulation of Heat and Power Networks for Total Site Energy Integration.	C Sreedhar	December 1999
31.	Optimization and Control of an Ammonia Synthesis Reactor Using Expert Systems.	R Krishna	May 1999
32.	Development of Water Treatment Technique for removal of metals.	Ms G Sirisha Krishna	December 1998
33.	Development of PC-Based Data Acquisition System for measuring hydrodynamic parameters in a Trickle Bed Reactor.	M Murali Krishna	May 1998
34.	The Power and Energy Scenario in India: An Techno-Economic Outlook.	Shishir Kapoor	May 1998

35.	Optimization of Heat Exchanger Networks using Expert Systems.	Mukundan R	December 1997
36.	Expert System Control of an Exothermic Batch Reactor using Generic Model Control and Globally Linearizing Control.	K Jyotsna	December 1997
37.	A Project Feasibility Report on Polyethylene.	Anuraag Agarwal	December 1997
38.	Design and Fabrication of a Trickle Bed Reactor for the studies on RTD, Pulse Properties, and Heat Transfer aspects.	P Ajay Kumar	May 1997

Member of Doctoral Advisory Committees for PhD Candidates: 9

S.No.	Title of the Thesis	Name & ID of the Candidate	Date of Completion
1.	Failure Analysis of Thermosiphon Solar Hot Water System on Account of Scaling; Supervisor: Prof R P Vaid	Vishwas Krishnarao Deshpande 1990PHXF408	Ongoing
2.	Enhancing Resource Conservation & Recycling: A Frontier Approach (A Case of Aluminum Cycle); Supervisor: Mr C S Jagannath	K B Thakur 1994PHXF402	March 2001
3.	Multi Criteria Evaluation of Solar Water Heating System as a Commercially Viable Domestic Water Heating Option in India; Supervisor: Prof M Ramachandran	Morapakala Srinivas 1999PHXF005	October 2007
4.	Mathematical Modeling and Experimental Investigations of Combustion of Biomass based Slurry Fuels in Oil Fired Furnaces; Supervisor: Dr S R Shankapal	Prakash S V 2000PHXF007	April 2007
5.	Studies on Advanced Modeling Techniques for Optimal Reservoir Operation and Performance Evaluation of an Irrigation System; Supervisor: Dr K S Raju	Vasan A 2000PHXF409	November 2005
6.	Solid and Hazardous Waste Management and Utilisation in Iron and Steel Making; Supervisor: Dr Piyush Kant Pandey	Raj Kumar Agrawal 2001PHXF402	September 2005
7.	Design of Occupational Health and Safety Management Systems for Viscose Staple Fiber Division, Grasim Industries Limited; Supervisor: Dr Arun Maity	Samir Ramdas Kale 2002PHXF026	Ongoing
8.	Kinetics and Engineering of Solid Acid Catalyzed Selective Toluene Nitration; Supervisor: Dr K V Raghavan	I Sreedhar 2002PHXF028	March 2008
9.	Modeling and Simulation of Metallocene Catalysed Olefin Polymerization; Supervisor: Dr Arvind K Sharma	Nikhil Prakash 2005PHXF401	Ongoing

Supervision of Project Work:

- Supervised around 350 students for their Projects (Study oriented projects, Computer projects, Lab oriented projects, Special projects, Professional Practice, Professional Assistants; Course projects of Process Plant Simulation, Reaction Engineering, Computer aided design, Fluidization Engineering, etc.).
- Around 15 Professional Assistants were guided for the projects of the developmental work related to the Institute requirements such as Automation of Workshop Stores & Office, Course Material Preparation for EDD (Educational Development Division, BITS Pilani) Notes Publication, etc.

Editor-in-Chief:

- Innovative Energy Policies, 2011 onwards.
- ACCENTS Transactions on Optimization, 2014 onwards.
- Innovative Energy & Research, 2017 onwards.

Editorial Board Member of International Journals:

1. Energy Education Science and Technology, 2003 onwards.
2. Research Journal of Chemistry and Environment, 2005 onwards.
3. International Journal of Computer Mathematical Science and Applications, 2006 onwards.
4. Journal on Future Engineering and Technology, 2007 onwards.
5. International Journal of Applied Evolutionary Computation, 2008 onwards.
6. Energy & Technology, 2010 onwards.
7. Innovative Energy Policies, 2010-2011.
8. International Journal of Swarm Intelligence, 2012 onwards.
9. Indian Journal of Training and Development, 2013 onwards.

Editorial & Cover Design:

1. Babu B V, Conservation of Natural Resources, Editorial & Cover Design for December 2006 Issue of International Research Journal of Chemistry & Environment.
2. Babu B V, Materials Engineering//Fluids Engineering/Advanced Technologies in Materials Science, Editorial for August-October 2008 Issue of Journal of Future Engineering and Technology.

Expert Reviewer & Referee for Research Articles of International Journals:

1. AIChE Journal (American Institute of Chemical Engineers).
2. Chemical Engineering Science (Elsevier).
3. Computers and Chemical Engineering (Elsevier).
4. International Journal of Heat and Mass Transfer (Elsevier).
5. Heat Transfer Engineering (Taylor & Francis).
6. Chemical Engineering Journal (Elsevier).
7. IEEE Transactions on Evolutionary Computation (IEEE).
8. European Journal of Operational Research (Elsevier).
9. Chemical Engineering Communications (Taylor & Francis).
10. IEEE Transactions on Systems, Man and Cybernetics (IEEE).
11. Industrial & Engineering Chemistry Research (ACS).
12. Applied Thermal Engineering (Elsevier).
13. Chemical Product and Process Modeling (BEP).
14. Journal of Analytical and Applied Pyrolysis (Elsevier).
15. International Journal of Systems Science (Taylor & Francis).
16. Journal of Petroleum Science and Engineering (Elsevier).
17. IEEE-ASME Transactions on Mechatronics (IEEE/ASME).
18. Journal of Hazardous Materials (Elsevier).
19. International Journal of Chemical Reactor Engineering (BEP).
20. ASME Journal of Electronic Packaging (ASME).
21. Bioresource Technology (Elsevier).
22. Energy & Fuels (ACS).
23. Applied Mathematical Modelling (Elsevier).
24. Journal of Environmental Management (Elsevier).
25. Waste Management (Elsevier).
26. International Journal of Environment and Pollution (Inderscience).
27. Progress in Energy and Combustion Science (Elsevier).
28. Journal of The Indian Institute of Science (IISc).
29. Materials and Manufacturing Processes (Taylor & Francis).
30. Transactions on Internet Research (IPSI BGD).
31. The Proceedings of the Pakistan Academy of Sciences (PAS).
32. Environmental Engineering Science (Mary Ann Liebert Inc).
33. Fuel (Elsevier).
34. Quantitative Finance (Taylor & Francis).
35. International Journal of Neural Systems (World Scientific).
36. Indian Chemical Engineer (Taylor & Francis).
37. Institution of Engineers (India) [IE(I)].
38. Current Science (Indian Academy of Sciences).
39. International Journal of Environment and Waste Management (Inderscience).
40. Journal of The Taiwan Institute of Chemical Engineers (Elsevier).
41. Bioresources (NCSU).
42. International Journal of Physical Sciences (Academic).

43. Environmental Science & Technology (ACS).
44. Fuel Processing Technology (Elsevier).
45. Chemical Industry & Chemical Engineering Quarterly (AChE).
46. International Journal of Hydrogen Energy (Elsevier).
47. African Journal of Environmental Science and Technology (Academic).
48. Biofuels, Bioproducts & Biorefining (Wiley).
49. Chemical and Biochemical Engineering Quarterly (CSCE).
50. Journal of Information Science and Engineering (CEPS).
51. International Journal of Applied Evolutionary Computation (IGI-Global).
52. Journal of Chemical Technology & Biotechnology (Wiley).
53. Information Sciences (Elsevier).
54. Applied Soft Computing (Elsevier).
55. Annals of Operations Research (Springer).
56. Desalination and Water Treatment (Desalination).
57. Environmental Technology (Taylor & Francis).
58. Applied Energy (Elsevier).
59. Asia-Pacific Journal of Chemical Engineering (Wiley).
60. Journal of Engineering and Technology Research (Academic).
61. ASME-Journal of Heat Transfer (ASME).
62. Computers & Mathematics with Applications (Elsevier).
63. International Journal of Computer Applications in Technology (Inderscience).
64. Science of the Total Environment (Elsevier).
65. Chemical Engineering Research and Design (Elsevier).
66. Engineering Applications of Artificial Intelligence (Elsevier).
67. Journal of Chemical & Engineering Data (ACS).
68. Bioremediation (Taylor & Francis).
69. Engineering Optimization (Taylor & Francis).
70. Journal of Polymer Research (Springer).
71. Journal of Water Process Engineering (Elsevier).
72. Journal of The Chemical Society of Pakistan (TCSP).
73. Reviews in Chemical Engineering (Walter de Gruyter).
74. Journal of Industrial & Engineering Chemistry (Elsevier).
75. Bioprocess and Biosystems Engineering (Springer).
76. Chemical Engineering and Technology (Wiley).

Expert Reviewer for Research Articles of International Conferences:

1. Reviewer for the Technical Papers submitted for presentation at **4th Asia-Pacific Conference on Simulated Evolution And Learning (SEAL-2002)**, organized by School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore, Orchid Country Club, Singapore, November 18-22, 2002.
2. Reviewer for the Technical Papers submitted for presentation at the "Genetic Algorithms track" of **Genetic and Evolutionary Computation Conference (GECCO-2003)**, Chicago, Illinois, USA, July 12-16, 2003.
3. Reviewer for the Special Session on "Evolutionary Computation", The Second International Conference on **Computational Intelligence, Robotics, and Autonomous Systems (CIRAS-2003)**, National University of Singapore, Singapore, December 15-17, 2003.
4. Reviewer for the Technical Papers submitted for presentation at the "Genetic Algorithms track" of **Genetic and Evolutionary Computation Conference (GECCO-2004)**, Seattle, Washington, USA, June 26-30, 2004.
5. Reviewer for the Invited Session on "Engineering Applications of Evolutionary Computation Techniques", **The Eighth World Multi-Conference on Systemics, Cybernetics and Informatics (SCI-2004)**, Orlando, Florida, USA, July 18-21, 2004.
6. Reviewer for the Technical Papers submitted for presentation at **2004 IEEE Conference on Cybernetics and Intelligent Systems (CIS-2004)**, jointly organized by the IEEE SMC Society Singapore Chapter and IEEE R&A Society Singapore Chapter, Singapore, December 1-3, 2004.
7. Reviewer for the Technical papers submitted for presentation at **2nd International Conference on Autonomous Robots and Agents (ICARA 2004)**, Palmerston North, New Zealand, December 13-15, 2004.
8. Reviewer for the Technical papers submitted for presentation at **International Conference on Computing, Communications, and Control Technologies (CCCT-2004)**, Sponsored by The University of Texas at Austin and The International Institute of Informatics and Systemics (IIIS), Austin, Texas, USA, August 14-17, 2004.
9. Reviewer for the Technical papers submitted for presentation at **Genetic and Evolutionary Computation Conference (GECCO-2005)**, Washington DC, USA, June 25-29, 2005.
10. Reviewer for the Technical papers submitted for presentation at **Heat Transfer in Components and Systems for Sustainable Energy Technologies (Heat-SET 2005)**, Grenoble, France, April 5-7, 2005.

11. Reviewer for the Technical papers submitted for presentation at **The 9th World Multi-Conference on Systemics, Cybernetics and Informatics (SCI-2005)**, Orlando, Florida, USA, July 10-13, 2005.
12. Reviewer for the Technical papers submitted for presentation at **International Conference on Management Engineering and Informatics (MEI-2005)**, Texas, Austin, USA, July 24-27, 2005.
13. Reviewer for the Technical papers submitted for presentation at **The 3rd International Conference on Computing, Communications, and Control Technologies (CCCT-2005)**, Texas, Austin, USA, July 24-27, 2005.
14. Reviewer for the Technical papers submitted for presentation at **The Third International Conference on Computational Intelligence, Robotics, and Autonomous Systems (CIRAS-2005)**, National University of Singapore, Singapore, December 13-16, 2005.
15. Reviewer for the Technical papers submitted for presentation at **The 2nd Indian International Conference on Artificial Intelligence (IICAI-2005)**, Pune, India, December 20-22, 2005.
16. Reviewer for the Technical papers submitted for presentation at **The 2006 IEEE International Conferences on Cybernetics & Intelligent Systems (CIS 2006)**, jointly organized by IEEE R&A and SMC Singapore Chapters, Bangkok, Thailand, June 7-9, 2006.
17. Reviewer for the Technical papers submitted for presentation at **19th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems (ECOS-2006)**, Crete, Greece, July 12-14, 2006.
18. Reviewer for the Technical papers submitted for presentation at **10th World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI-2006)**, Orlando, Florida, USA, July 16-19, 2006.

Book Reviews:

1. 'Heat Transfer' by Ghoshdastidar P S, Oxford University Press India, March 2004.
2. 'McCabe/Unit Operations of Chemical Engineering 7e CR2006, McGraw Hill, New York, July 2004.
3. 'Fundamentals of Chemical Engineering & Technology', Tata McGraw Hill, India, July 2004.
4. 'Fundamentals of Chemical Engineering and Technology', Elsevier, Singapore, July 2007.
5. "Differential Evolution-Fundamentals, Parametric Study, and Applications in Electrical Engineering" by Anyong Qing, John Wiley & Sons, Singapore, December 2007.
6. "Heat and Mass Transfer", Oxford University Press India, October 2012.

PhD Thesis Examiner:

1. Ms Jigisha Soni (Parikh), "Studies in Low Temperature Pyrolysis of Biomass Materials", S V National Institute of Technology, South Gujarat University, Surat, 2004; Supervisor: Dr Salim A Channiwalla (Viva-Voce Examination held on May 17, 2005).
2. S V Prakash, "Mathematical Modeling and Experimental Investigations of Combustion of Biomass based Slurry Fuels in Oil Fired Furnaces", BITS Pilani, 2006; Supervisor: Dr S R Shankapal (Viva-Voce Examination held on April 24, 2007).
3. Ms Dipti, "Hybrid Genetic Algorithms and Their Applications", IIT Roorkee, 2007; Supervisor: Dr Kusum Deep (Viva-Voce Examination held on October 23, 2007).
4. Subhrangshu Moitra, "Applications of Genetic and Evolutionary Algorithms in Hot Rolling of Steel Strips", IIT Kharagpur, 2007; Supervisor: Dr Nirupam Chakraborty (Viva-Voce Examination held on December 05, 2007).
5. I Sreedhar, "Kinetics and Engineering of Solid Acid Catalyzed Mononitration of Toluene", BITS Pilani, 2007; Supervisor: Dr K V Raghavan (Viva-Voce Examination held on March 19, 2008).
6. Vijay Kumar Lamba, "Simulation & Modeling of Charge Transport in Nano MOSFETs", Guru Nanak Dev University, Amritsar, 2008; Supervisor: Dr Derick Engles (Viva-Voce Examination held on October 23, 2009).
7. Kishalay Mitra, "Midterm Supply Chain Planning under Uncertainty", IIT Bombay, 2009; Supervisor: Dr Ravindra D Gudi (Viva-Voce Examination held on November 04, 2009).
8. Ms Radha T, "Nature Inspired Algorithms and their Applications", IIT Roorkee, 2009; Supervisor: Dr Millie Pant (Viva-Voce Examination held on January 11, 2010).
9. R Ram Mohan Rao, "Adsorption Studies in Treatment of Industrial Waste Water by Low Cost Adsorbents", Osmania University, Hyderabad, 2010; Supervisor: Dr V V Basava Rao.
10. Ms Shirin Jamal Sayed, "Study of Waste water of Electroplating industries and its treatment", Devi Ahilya Vishwa Vidyalyaya, Indore, 2010; Supervisor: Dr Shankar Lal Garg.
11. Ms Anjana Kamra, "Algal Hydrogen Production: Optimisation and Feasibility Studies", Guru Jambheshwar University of Science and Technology, Hisar, 2010; Supervisor: Dr Anubha Kaushik (Viva-Voce Examination held on May 25, 2010).
12. Ms D Prasanna, "Bioremediation of Polycyclic Aromatic Hydrocarbons in Slurry Phase Bioreactor", Osmania University, Hyderabad, 2011; Supervisor: Dr P Nageshwara Sarma.
13. Ms G Sreelatha, "Development of Sensitive Methods for the Analysis of Pesticides and Low Cost Activated Carbon for the Removal of Pesticides and Dyes", MS University, Baroda, 2011; Supervisor: Dr Padmaja Sudhakar (Viva-Voce Examination held on May 03, 2011).

14. Ms Mona Sharma, "Integrated Photobiological Hydrogen Production and Bioremediation of Simulated Wastewater Using Microbial System", Guru Jambheshwar University of Science & Technology, Hisar, 2011; Supervisor: Dr Anubha Kaushik (Viva-Voce Examination held on January 16, 2012).
15. Mohammad Danish, "Analytical and Approximate Solutions of Selected Chemical Engineering Problems", IIT Roorkee, 2012; Supervisors: Dr Shashi Kumar and Dr Surendra Kumar (Viva Voce Examination held on April 03, 2012).
16. R Kishore Kumar, "Hydrodynamic Studies of Concurrent Gas Liquid Upflow through a Packed Bed Reactor", Osmania University, Hyderabad, 2012; Supervisors: Dr Ahamed Khan & Prof T Sankarshana.
17. V Ramsagar, "Unit-Specific Event-Based Models for Short-Term Scheduling of Batch Plants", IIT Delhi, 2013; Supervisor: Dr Munawar A Shaik (Viva-Voce Examination held on August 12, 2013).
18. Ms Nisha Katiyar, "Modeling and Simulation Studies on Methanol Reforming for Hydrogen Production", IIT Roorkee, 2013; Supervisors: Dr Shashi Kumar and Dr Surendra Kumar (Viva Voce Examination held on August 27, 2013).
19. Sanjeev Yadav, "Short-Term Scheduling of Refinery Operations", IIT Delhi, 2013; Supervisor: Dr Munawar A Shaik (Viva-Voce Examination held on October 18, 2013).
20. Ms Latha K C, "Visualization of Risk in Breast Cancer Using Intelligent Techniques", JSS University, Mysore, 2015; Supervisor: Dr S Balasubramanian (Viva-Voce Examination held on May 02, 2015).
21. P Srinivasa Rao, "Studies on Influence of Polymers on Drag in Gravity driven Flow Systems", Andhra University, Visakhapatnam, 2015; Supervisors: Dr GMJ Raju and Dr VSRK Prasad (Viva-Voce Examination held on).

PhD Thesis Reviewer:

1. Sampat D Manjare, "Studies on Adsorption of Ethyl Acetate Vapor in Molecular Sieves", BITS Pilani, 2003; Supervisor: Dr A K Ghoshal.
2. Raj Kumar Agrawal, "Solid and Hazardous Waste Management and Utilisation in Iron and Steel Making", BITS Pilani, 2004; Supervisor: Dr P K Pandey.
3. A Vasan, "Studies on Advance Modeling Techniques for Optimal Reservoir Operation and Performance Evaluation of an Irrigation System, BITS Pilani, 2005; Supervisor: Dr K S Raju.
4. S V Prakash, "Mathematical Modeling and Experimental Investigations of Combustion of Biomass based Slurry Fuels in Oil Fired Furnaces", BITS Pilani, 2006; Supervisor: Dr S R Shankapal.
5. I Sreedhar, "Kinetics and Engineering of Solid Acid Catalyzed Mononitration of Toluene", BITS Pilani, 2007; Supervisor: Dr K V Raghavan.
6. Samir Ramdas Kale, "Design of Occupational Health and Safety Management Systems for Viscose Staple Fibre Division, Grasim Industries Limited", BITS Pilani, 2009; Supervisor: Dr Arun Maity.

ME Dissertation Examiner:

1. Ms Leena Kapoor, "Kinetics of Biomass Pyrolysis: Experiments and Modelling", Jaypee University, Guna, 2011; Supervisor: Dr Ashish S Chaurasia (Viva-Voce Examination held on May 23, 2011).
2. Pawan Kumar, "Studies on Removal of Antiviral Drug: Lamivudine from Wastewater using different membranes and Adsorption using Batch and Column Processes", MNIT, Jaipur, 2011; Supervisor: Dr R K Vyas (Viva-Voce Examination held on August 04, 2011).
3. Akhilesh Kumar Pal, "Removal of Congo Red by using Electrocoagulation Technique", MNIT, Jaipur, 2011; Supervisor: Dr R K Vyas (Viva-Voce Examination held on August 04, 2011).
4. Ms Richa Sharma, "Studies on Removal of Diclofenac from Water/Waste Water", MNIT, Jaipur, 2012; Supervisor: Dr R K Vyas (Viva-Voce Examination held on June 21, 2012).
5. Shiv Mangal Singh, "Studies on Removal of Nevirapine from Wager using Photocatalysis and Electrocoagulation", MNIT, Jaipur, 2012; Supervisor: Dr R K Vyas (Viva-Voce Examination held on June 21, 2012).
6. Rahul Patwa, "Studies on Greywater Treatment using Advanced Oxidation Processes", MNIT, Jaipur, 2012; Supervisor: Dr R K Vyas (Viva-Voce Examination held on June 21, 2012).
7. Tarun Singh, "Optimal Scheduling of Resources", IIT Delhi, 2015; Supervisor: Dr S A Munawar (Viva-Voce Examination held on June 29, 2015).
8. Tapan Jain, "Short Term Scheduling of Gasoline Blending and Distribution Operations", IIT Delhi, 2015; Supervisor: Dr S A Munawar (Viva-Voce Examination held on June 29, 2015).
9. Ms Divya Saxena, "Optimal Operation of Pipeless Plants with Detailed Layout Considerations", IIT Delhi, 2015; Supervisor: Dr S A Munawar (Viva-Voce Examination held on June 29, 2015).
10. Amrith Kumar, "Modelling, Simulation and Multiobjective Optimization of Industrial Steam Reformer Including Coke Formation"; Supervisor: Dr Manojkumar C Ramteke (Viva-Voce Examination held on June 27, 2016).
11. Babu Lal Kumawat, "Role of Optimization in the Petroleum Field"; Supervisor: Dr S A Munawar (Viva-Voce Examination held on June 27, 2016).
12. Hima Harode, "Modelling and Multiobjective Optimization of Industrial Hydrocracking Unit"; Supervisor: Dr Manojkumar C Ramteke (Viva-Voce Examination held on June 27, 2016).
13. Ankur Jain, "Optimization of Hydrogen Network in Refineries"; Supervisor: Dr S A Munawar (Viva-Voce Examination held on June 27, 2016).

Sponsored Research Project:

S.No	Title of the Project	Funding Agency	Participation	Amount (Rs)	Year
1.	National Mission Project on Education through ICT: Developing suitable pedagogical methods for various classes (Process Design Decisions), intellectual calibers and research in e-learning Anchored by IIT-Kharagpur	MHRD	Principal Developer	10,00,000	2009-10
2.	Studies on Adsorption Process for the Removal of Metal Ions from Waste Water and Volatile Organic Compounds from Air by using Suitable Adsorbents	UGC	Principal Investigator	7,11,027	2007-10
3.	Studies on Biomass Gasification	KK Birla Academy	Principal Investigator	3,00,000	2006-07
4.	Improvement of Chemical Engineering Research Laboratories, BITS-Pilani.	DST	Principal Coordinator	23,00,000	2003-08
5.	Upgradation of Laboratory facilities, X-Plan Grant for Chemical Engineering Department, BITS-Pilani.	UGC	Head of the Department	10,00,000	2002-07
6.	Study related to Bagasse based Co-generation.	MERC	Consultant	25,000	2001-02
7.	Data Acquisition system for the measurement of liquid holdup and pulse properties for the studies on heat transfer in packed beds.	UGC	Principal Investigator	11,000	1997-98

Travel Grants for International Conferences:

S.No	Title of the Project	Funding Agency	Participation	Amount (Rs)	Year
1.	Travel Grant for attending International Conference during 2002-2003.	AICTE	Presenting a Paper at SEAL-2002, Singapore.	29,867	2001-02
2.	Financial Assistance for Participating in Asia-Pacific Conference on Simulated Evolution and Learning from 18-22/11/2002 in Singapore.	DST	Presenting a Paper at SEAL-2002, Singapore.	11,136	2001-02

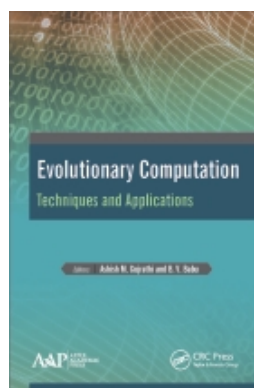
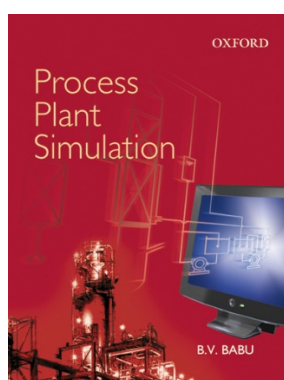
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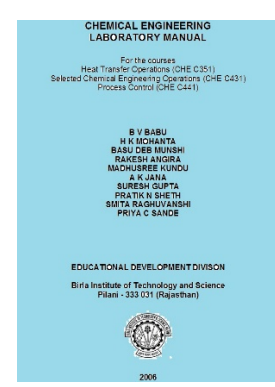
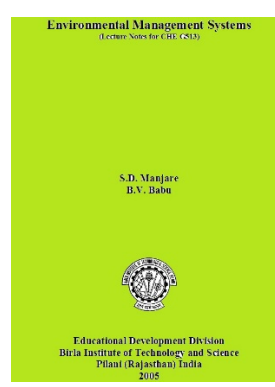
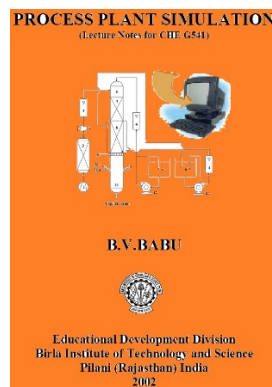
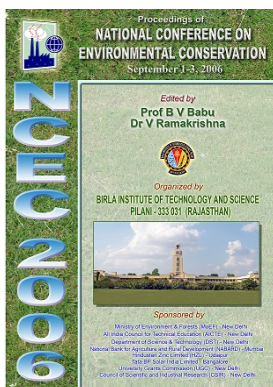
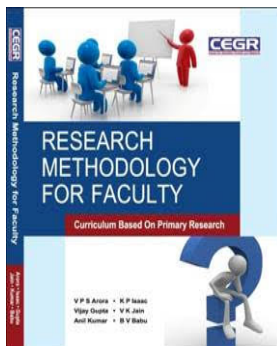
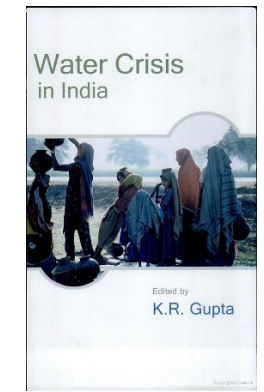
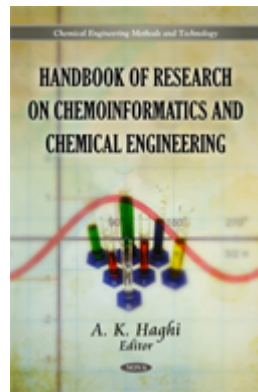
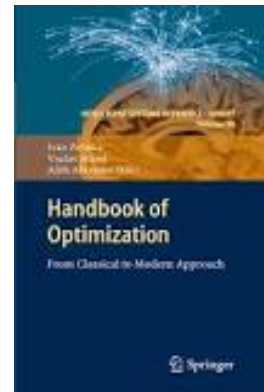
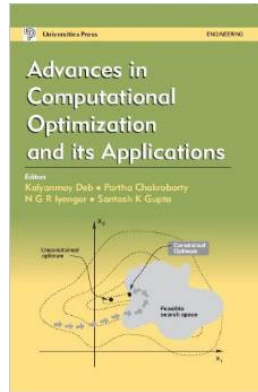
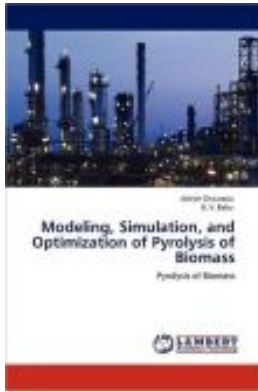
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