

KALYANMOY DEB, FACM, FIEEE, FASME
University Distinguished Professor
Koenig Endowed Chair Professor
Department of Electrical and Computer Engineering
Department of Computer Science and Engineering
Department of Mechanical Engineering
Michigan State University
428 S. Shaw Lane, Room 2120 Engg. Building
East Lansing, MI 48824, USA
Tel: 517 432 2144 (office), 517 930 0846 (cell)
Email: kdeb@egr.msu.edu
<http://www.egr.msu.edu/~kdeb/>

Research Interests: Computational intelligence, Evolutionary computation, Multi-criterion optimization and decision analysis, Machine learning, Data Analytics

Teaching Interests: Multi-Criterion Optimization and decision making, Evolutionary Computation, Computational Intelligence, Machine learning, Programming and Numerical Methods

Education:

DOCTOR OF PHILOSOPHY in Engineering Mechanics, University of Alabama, Tuscaloosa, USA, May 1991

‘Boolean and floating-point function optimization using messy genetic algorithms’

MASTER OF SCIENCE in Engineering Mechanics, University of Alabama, Tuscaloosa, USA May 1989

‘Multi-modal function optimization using genetic algorithms’

BACHELOR OF TECHNOLOGY in Mechanical Engineering
Indian Institute of Technology Kharagpur, India
May 1985

Work Experience:

UNIVERSITY DISTINGUISHED PROFESSOR AND KOENIG ENDOWED CHAIR PROFESSOR, Department of Electrical and Computer Engineering, Michigan State University, East Lansing, USA (2012 to present)

PROFESSOR, Department of Computer Science and Engineering, Michigan State University, East Lansing, USA (2012 to present)

PROFESSOR, Department of Mechanical Engineering, Michigan State University, East Lansing, USA (2012 to present)

INTERNATIONAL VISITING PROFESSOR, Department of Mechanical Engineering and Department of Computer Science and Engineering, Indian Institute of Technology Kharagpur, India (2015 to 2019)

VISITING DISTINGUISHED PROFESSOR, Department of Information and Service Economy, Aalto University School of Business, Helsinki, Finland (2009 to 2020)

VISITING PROFESSOR, Department of Automation Engineering, University of Skövde, Sweden (2009 to Present)

PROFESSOR, Department of Mechanical Engineering, IIT Kanpur, India

December 1999 to July 2012

ASSOCIATE PROFESSOR, Department of Mechanical Engineering, IIT Kanpur, India
June 1997 to November 1999

ASSISTANT PROFESSOR, Department of Mechanical Engineering, IIT Kanpur, India
January 1993 to May 1997

VISITING RESEARCH ASSISTANT PROFESSOR, Department of General Engineering
University of Illinois at Urbana-Champaign, USA
April 1991 to November 1992

ASSISTANT ENGINEER, Engineers India Limited, New Delhi
June 1985 to July 1987

Significant Other Positions/Associations:

CONSULTANT, ArcelorMittal, Spain, January 2018 to Present

CONSULTANT, Siemens PLM, East Lansing, April 2016 to Present

MIDLAND RESEARCH INSTITUTE FOR VALUE CHAIN CREATION (MRIVCC), Midland,
Michigan
August 2015 to Present

FINLAND DISTINGUISHED PROFESSOR (FIDI PRO), Helsinki School of Economics, Finland
June 2007 to May 2009
Supported by Academy of Finland

VISITING CHAIR PROFESSOR OF APPLIED COMPUTING, University of Birmingham, United
Kingdom
May 2007 to June 2008

VISITING PROFESSOR, Nanyang Technological University, Singapore
May 2006 to July 2007
Supported by a Collaborative A-Star Project

FREDRICK WILHELM BESSEL AWARD PROFESSOR, University of Karlsruhe, Germany
June 2003 to November 2003
Supported by Alexander von Humboldt Foundation

VISITING PROFESSOR, ETH, Zurich, Switzerland
February 2001 to July 2001
Supported by ETH, Zurich

HUMBOLDT FELLOW, University of Dortmund, Germany
June 1998 to July 1999
Supported by Alexander von Humboldt Foundation

Leadership Roles:

CIS REPRESENTATIVE TO IEEE-USA GOVERNMENT RELATIONS POLICY COMMITTEE
ON ENERGY, April 2018 to Present

CHAIR, IEEE Computational Intelligence Society Pioneer Award Committee, 2022

MEMBER, IEEE Fellows Award Committee, 2018 to Present

CONSULTANT, Academic Advancement Network Committee, Michigan State University (MSU),
2016-18

THRUST AREA LEADER, NSF Center on BEACON (Evolutionary Computation), MSU,

2013-20

CHAIR, PROMOTION AND TENURE COMMITTEE, Department of Electrical and Computer Engineering, MSU, 2021 to Present

CHAIR, GRADUATE STUDIES COMMITTEE, Department of Electrical and Computer Engineering, MSU, 2013-15

GRADUATE RECRUITMENT COORDINATOR, Department of Electrical and Computer Engineering, MSU, 2013-15

ECE COMMITTEE MEMBERS, Promotion and Tenure committee (2015 to Present), Graduate Studies Committee (2012 to present)

FACULTY MENTOR, Academy of Global Engagement (AGE), MSU (2017-19)

CHAIR, Nyquist Endowed Chair Search Committee, Department of Electrical and Computer Engineering, MSU, 2020

CHAIR, Hong Endowed Chair Search Committee, Department of Electrical and Computer Engineering, MSU, 2020

MEMBER, Koza Endowed Chair Search Committee, MSU, 2015

MEMBER, ME Chair Search Committee, MSU, 2022-23

GENERAL CHAIR, 10th Evolutionary Multi-Criterion Optimization (EMO-2019) Conference, Kellogg Center, MSU,

PRINCIPAL INVESTIGATOR, NSF Center Proposal on AI in Optimization involving 26 faculty members from 6 universities, 2020

FOUNDING CHAIR, EMO Conference Series, Zurich, Switzerland, 2001

FOUNDING CHAIR, EMO-MCDM Dagstuhl Seminar Series, Saarbrucken, Germany, 2004

HEAD, Center for Development for Technical Education, IIT Kanpur, India, 2004-08

DIRECTOR, Center for Design and Drafting, IIT Kanpur, India, 2006–2011

DIRECTOR, Kanpur Genetic Algorithms Laboratory, IIT Kanpur, India, 1999-2011

DIRECTOR, Computational Optimization and Innovation (COIN) Laboratory, MSU, 2012 to Present

Major Awards/Honors:

TOP AI SCIENTIST, International Artificial Intelligence Industry Alliance (AIIA), 2023

FELLOW, Association of Computing Machinery (ACM), 2023

FELLOW, Asia-Pacific Artificial Intelligence Association (AAIA), 2022

WITHROW SENIOR DISTINGUISHED RESEARCH SCHOLAR AWARD, College of Engineering, Michigan State University, 2022

BEST PAPER AWARD, 'IEEE Congress on Evolutionary Computation' Conference, Padua, Italy, 2022

UNIVERSITY DISTINGUISHED PROFESSOR, Michigan State University, 2021

IEEE CIS EVOLUTIONARY COMPUTATION PIONEER AWARD, Computational Intelligence Society, IEEE, 2018

LIFETIME ACHIEVEMENT AWARD, Clarivate Analytics, 2017

HIGHLY CITED RESEARCHER, Clarivate Analytics, 2017

OUTSTANDING RESEARCHER AWARD, Soft Computing Research Society (SCRS), 2017

IEEE TRANSACTIONS ON EVOLUTIONARY COMPUTATION OUTSTANDING PAPER AWARD, Computational Intelligence Society, IEEE, 2016

SIGEVO IMPACT AWARD, ACM Special Interest Group on Evolutionary Computation, ACM, 2016

BEST PAPER AWARD, Genetic Algorithms Track at Genetic and Evolutionary Computation Conference (GECCO-2016)

JC BOSE MEMORIAL LECTURE AWARD, Indian National Science Academy (INSA). 2016

EMINENT ENGINEER AWARD, Tripura State Centre for The Institution of Engineers (India), 2015

HONORARY LIFE MEMBER OF THE SOFT COMPUTING RESEARCH SOCIETY, 2015

DISTINGUISHED PROFESSOR VISITATION PROGRAM, Mexican Academy of Sciences (AMC) and United States-Mexico Foundation for Science (FUMEC), 2014-15

FELLOW, American Society of Mechanical Engineers (ASME), 2014

IEEE CIS DISTINGUISHED LECTURER AWARD, IEEE Computational Intelligence Society, 2014–2016

HONORARY DOCTORATE DEGREE, Faculty of Information Technology, University of Jyväskylä, Finland, 2013

WILEY PRACTICE PRIZE, International Society on Multi-Criterion Decision Making (MCDM), 2013

TWAS PRIZE IN ENGINEERING SCIENCES, The World Academy of Sciences (TWAS), Italy, 2012

INFOSYS PRIZE, Infosys Science Foundation, Bangalore, India, 2011

J. C. BOSE NATIONAL FELLOWSHIP, Department of Science and Technology, Ministry of Science and Technology, Government of India, New Delhi, India, 2011

CAJASTUR MAMDANI PRIZE, European Centre for Soft Computing, Spain, 2011

DISTINGUISHED ALUMNUS AWARD, Indian Institute of Technology Kharagpur, 2011

VELUX FOUNDATION GUEST PROFESSORSHIP at Technical University of Denmark (DTU), 2011–2012

MCDM EDGEWORTH-PARETO AWARD
by International Society on Multiple Criteria Decision Making (MCDM), 2008

THOMSON CITATION LAUREATE AWARD in Computer Science,
Thomson Reuters, 2006

SHANTI SWARUP BHATNAGAR PRIZE in Engineering Sciences,
Council for Scientific and Industrial Research (CSIR), Government of India, 2005

DEVA RAJ ENDOWED CHAIR PROFESSOR at Indian Institute of Technology Kanpur, India, 2007–2010

GURMUKH AND VEENA MEHTA ENDOWED CHAIR PROFESSOR at Indian Institute of Technology Kanpur, India, 2011–2013

FINLAND DISTINGUISHED PROFESSOR (FIDIPRO) at Helsinki School of Economics, Academy of Finland, 2007-2009

FELLOW, Institute of Electrical and Electronics Engineers (IEEE), 2012

FELLOW, Indian National Science Academy (INSA), 2011

FELLOW, Indian Academy of Sciences (IASc), 2006

FELLOW, Indian National Academy of Engineering (INAE), 2004

FELLOW, International Society for Genetic and Evolutionary Algorithms (ISGEC), 2003

FRIEDRICH WILHELM BESSEL RESEARCH AWARD,
Alexander von Humboldt Foundation, Germany, 2002

HUMBOLDT FELLOW, Alexander von Humboldt Foundation, Germany
June 1998–July 1999

IEEE CIS TEACHING AWARD, IEEE Computational Intelligence Society, 2009

MOST HIGHLY CITED AND CURRENT CLASSIC PAPER: 2002 IEEE TEC paper on NSGA-II
Essential Science Indicators, Thomson Reuters, 2010

FAST BREAKING PAPER AWARD IN ENGINEERING: 2002 IEEE TEC paper on NSGA-II
ISI Web of Science's Essential Science Indicators (ESI), Feb 2004

BEST PAPER AWARD, 'Multi-Criterion Decision Making (MCDM-2011)' Conference, Jyväskylä, Finland, 2011

BEST PAPER AWARD, 'Evolution Artificielle' Conference, Marseille, France, 2003

SIGEVO EXECUTIVE COMMITTEE MEMBER, ACM Special Interest Group on Evolutionary Computation, 2007–2013

EXECUTIVE COUNCIL MEMBER, International Society on Genetic and Evolutionary Algorithms (ISGEC) (one of 15 members worldwide and alone from India), Since 1999

INAE YOUNG ENGINEER AWARD, Indian National Academy of Engineering, 1996

AICTE CAREER AWARD FOR YOUNG TEACHERS, All India Council for Technical Education, 1996-97

DST YOUNG SCIENTIST PROJECT AWARD, Department of Science and Technology, India, June 1994

GRADUATE RESEARCH COUNCIL FELLOWSHIP, University of Alabama, Tuscaloosa, USA
August 1989 - May 1991 (2 consecutive years)

JEFFERSON GOBLET STUDENT AWARD (April 1990)
31st Structures, Structural Dynamics, and Materials Conference
AIAA/ASME/ASCE/ASC/AHS, Long Beach, California

OUTSTANDING GRADUATE RESEARCH ASSISTANT
Department of Engineering Mechanics, University of Alabama, Tuscaloosa, USA
1989-1990, 1990-1991

OUTSTANDING MASTER'S THESIS AWARD (1989-1990)
College of Engineering and Department of Engineering Mechanics
University of Alabama, Tuscaloosa, USA

First prize in ALL INDIA STUDENTS DESIGN COMPETITION (August, 1995)

Institution of Engineers, India
'Design a machine to drill polygonal (square, hexagonal) holes'

BEST STUDENT in Mechanical Engineering (Amlan Sen Memorial Award) (1985)
BEST STUDENT in Industrial Management Program (1985)
Indian Institute of Technology Kharagpur

Journal Board Membership:

ADVISORY BOARD MEMBER, Evolutionary Computation Journal, MIT Press,
2002 to Present

EDITORIAL ADVISORY BOARD MEMBER, Engineering Optimization Journal, Taylor and
Francis, 2003 to Present

EDITORIAL BOARD MEMBER, Genetic Programming and Evolvable Machines
Springer, 2003 to Present

EDITORIAL BOARD MEMBER, International Journal of Systems, Signals, Control and En-
gineering Applications,
Medwell Journals, 2008 to Present

EDITORIAL ADVISORY BOARD MEMBER, Swarm and Evolutionary Computation, Elsevier,
2010 to Present

EDITORIAL BOARD MEMBER, Smart Grid and Renewable Energy, Scientific Research Pub-
lishing, Inc. USA, Since 2010 to Present

EDITORIAL BOARD MEMBER, Operations Research Perspectives (ORP),
Elsevier, 2013 to Present

BOOK SERIES EDITOR, Genetic and Evolutionary Computation (GEC) book series, Springer.
2018 to Present

AREA EDITOR, Journal of Multi-Criteria Decision Analysis, Wiley, 2009–2018

ASSOCIATE EDITOR, IEEE Transaction on Evolutionary Computation. IEEE Press,
1999-2016

ASSOCIATE EDITOR, Applied Soft Computing, Elsevier
2009–2014

ASSOCIATE EDITOR, Pacific Journal of Optimization, Yokohama Publishers, 2010–2015

EDITORIAL BOARD MEMBER, Journal of Optimization, Hindawi Publishing Corporation,
2013–2015

EDITORIAL BOARD MEMBER, Journal of Smart Grid Frontier (SGF), American V-King
Scientific Publishing (AVS), 2013-15

EDITORIAL BOARD MEMBER, Environment, Systems, and Decisions, Springer, 2012-14

EDITORIAL BOARD MEMBER, European Journal of Operations Research, Elsevier, 2008-12

EDITORIAL ADVISORY BOARD MEMBER, Recent Patents on Computer Science,
Bentham Science Publishers, Since 2007-09

EDITORIAL BOARD MEMBER, Studies in Engineering and Technology,
Redfame Publishing Inc., 2013-15

EDITORIAL BOARD MEMBER, The Scientific World Journal,
Hindawi Publishing Corporation, 2013-16

EDITORIAL BOARD MEMBER, Journal of The Franklin Institute, Elsevier, 2010-20

EDITORIAL BOARD MEMBER, Journal of Industrial and Management Optimization (JIMO), American Institute of Mathematical Sciences, 2008-10

EDITORIAL ADVISORY BOARD MEMBER, International Journal for Simulation, Multidisciplinary Design Optimization, EDP Sciences, 2007-11

EDITORIAL BOARD MEMBER, Human Systems Management, IOS Press, 2006-15

EDITORIAL BOARD MEMBER, Journal of Memetic Computing, Springer, 2007-16

Citations and Journal Records:

GOOGLE SCHOLAR CITATIONS (as of July 18, 2023): **189,196**, H-INDEX: **133**

GOOGLE SCHOLAR RANKINGS:

HIGHEST CITED RESEARCHER in 'Evolutionary Computation'

HIGHEST CITED RESEARCHER in 'Multi-objective Optimization'

THIRD MOST-CITED RESEARCHER in 'Optimization'

16TH MOST-CITED RESEARCHER in 'Artificial Intelligence'

Research Achievements:

- Written **two** text books on optimization:
 1. **Deb, K.** (2001). *Multi-objective optimization using evolutionary algorithms*. Chichester, London: Wiley, (**Third Print**, 517 pages). Also available as a Wiley Singapore Edition in India. (**20,875** GS Citations)
 2. **Deb, K.** (1995). *Optimization for engineering design: Algorithms and examples*. New Delhi: Prentice-Hall, (**Seventh Print**, 382 pages). (**1,994** GS Citations)
- Published **262** international journal papers and **353** international conference papers (total **615** articles).
- Published **21** edited books. Also written one Encyclopedia article on genetic algorithms.
- Graduated 27 PhD students and 63 Master's degree (thesis) students. Mentored 12 post-doctoral fellows.
- Invited to deliver **116** keynote/plenary lectures in major international conferences and symposia in the past 15 years. (See page 58).
- Funded Research Projects (partial list):
 - Funded projects from EPA, DARPA, USACE-ERDC-ITL, NSF: Chesapeake Bay Watershed management, TRADES project for structure of structures, Knowledge Informed Tradespace for Resilient Systems (KITRS), NSF Center on Study of Evolution in Action, etc. (2012 to Present)
 - Industry projects from Google, Facebook, ArcelorMittal, IBS Software Services, Siemens, Dow Chemical Company, Volvo Car Corporation Sweden, General Motors Company, Ford Motor Company, Hemlock Semiconductors, General Electric, Honda R&D Japan, STMicroelectronics Italy, Orelogy, Australia. (2012 to Present)
 - Other collaborations while in India: Tata Steel Jamshedpur, Tata Engg. and Locomotive Company Pune, Hindustan Aeronautics Limited Bangalore, Department of Science and Technology, AICTE, DoE, etc.
 - International Collaborative Projects:
 - * Alexander von Humboldt Foundation project on 'Real-parameter evolutionary optimization' with Hans-Paul Schwefel, University of Dortmund, Germany, 1998-1999

- * Asia-ITC funded MSc. Program in Natural Computation at the computer science department with Xin Yao, University of Birmingham, UK (2001-02)
- * Alexander von Humboldt Foundation funded Bessel Research Award project on ‘Evolutionary multi-criterion optimization’ with Juergen Branke and Hartmut Schmeck, University of Karlsruhe, Germany, May-November, 2003
- * A-STAR project entitled ‘Evolutionary optimization in data-mining’ with P. N. Suganthan, Nanyang Technological University, Singapore, 2005-2007
- * Indo-Portuguese S&T Bilateral Govt. project with Carlos Fonseca, University Algarve, 2003–2006
- * Indo-Swiss S&T Bilateral Govt. project with Eckart Zitzler and Lothar Thiele, ETH Zurich, Switzerland, 2006–2008
- * Academy of Finland funded ‘Finland Distinguished Professor (FiDiPro)’ project with Kaisa Miettinen, Helsinki School of Economics, Finland, 2007-2009
- * Indo-Portuguese S&T Bilateral Govt. project with Gaspar Cunha, University Minho, 2010–2012
- * VINNOVA funded project on ‘Simulation based Innovization of Production Systems (SIPS)’ with Amos Ng, University of Sköde, Sweden, 2009–2012
- * Academy of Finland project on ‘Automated Innovization’ with Pekka Korhonen, Aalto University School of Economics, Finland, 2010-2012
- * Danish Council for Strategic Research project entitled ‘REWIND: Knowledge based engineering for improved reliability of critical wind turbine components’ with Jesper Hattel, Technical University of Denmark (DTU), 2011–2016
- * SPARC project with IIT Roorkee funded by Government of India with Prof. D. K. Saxena and Erik Goodman, 2019-23.

Further details can be found in my web site <http://www.egr.msu.edu/~kdeb>.

Kalyanmoy Deb

KALYANMOY DEB, PhD, FIEEE, FASME, FNA, FASc, FNAE
University Distinguished Professor
Koenig Endowed Chair Professor
Michigan State University
East Lansing, MI 48824, USA
Email: kdeb@egr.msu.edu
<http://www.egr.msu.edu/~kdeb/>

Publication Record

Total Google Scholar Citation is **189,196** with a h-index of **133** (July 18, 2023):

Journal Papers:	262
Conference Papers:	353
Total Refereed Publications:	615
Text Books:	2
Edited Books:	21

Books

1. **Deb, K.** (2001). *Multi-objective optimization using evolutionary algorithms*. Chichester, London: Wiley, (**Third Print**, 517 pages). Also available as a Wiley Singapore Edition in India.
 2. **Deb, K.** (1995). *Optimization for engineering design: Algorithms and examples*. New Delhi: Prentice-Hall, (**Seventh Print**, 382 pages).
-

Edited Books

1. Saxena, D. K., Mittal, S., **Deb, K.**, and Goodman, E. (in press). (eds.) *Machine Learning Assisted Evolutionary Multi-Objective Optimization*. Springer.
2. Gandomi, A., Emrouznejad, A., Jamshidi, M. M., **Deb, K.** and Rahimi, I. (eds.) (2020). *Evolutionary Computation in Scheduling*. Wiley.
3. Banzhaf, W., Cheng, B. H. C., **Deb, K.**, Holekamp, K. E., Lenski, R. E., Ofria, C., Pennock, R. T., Punch, W. F., and Danielle W. J. (eds.) (2020). *Evolution in Action: Past, Present and Future*. Springer.
4. Datta, R. and **Deb, K.** (eds.) (2015). *Evolutionary Constrained Optimization*. New Delhi: Springer (Infosys Science Foundation Series).
5. Wang, L., Ng, A. and **Deb, K.** (eds.) (2011). *Multi-Objective Evolutionary Optimisation for Product Design and Manufacturing*. London: Springer-Verlag.
6. Takahashi, R. H. C., **Deb, K.**, Wanner, E. F., Greco, S. (eds.) (2011). *Proceedings of the Sixth International Conference on Evolutionary Multi-Criterion Optimization (EMO-2011)*, Ouro Preto, Brazil (Lecture Notes in Computer Science 6576), Heidelberg: Springer.

7. **Deb, K.**, Bhattacharya, A., Chakraborti, N., Chakroborty, P., Das, S., Dutta, J., Gupta, S. K., Jain, A., Aggarwal, V., Branke, J., Louis, S. J., and Tan, K. C. (eds.) (2010). *Proceedings of Eighth International Conference on Simulated Evolution and Learning*. Kanpur, India. (Lecture Notes in Computer Science 6457), Heidelberg: Springer.
8. Branke, J., **Deb, K.**, Mietinnen, K. and Slowinski, R. (eds.) (2008). *Multiobjective optimization: Interactive and evolutionary approaches*. Heidelberg, Germany: Springer.
9. Knowles, J., Corne, D. and **Deb, K.** (eds.) (2008). *Multiobjective Problem Solving from Nature: From Concepts to Applications*. Berlin, Germany: Springer.
10. Keijzer, M., Antoniol, G., Congdon, C. B., **Deb, K.**, Doerr, B., Hansen, N., Holmes, J. H., Hornby, G. S., Howard, D., Kennedy, J., KUMar, S., Lobo, F. G., Miller, J. F., Moore, J., Neumann, F., Pelikan, M., Pollack, J., Sastry, K., Stanley, K., Stoica, A., Talbi, E.-G., Wegener, I. (eds.) (2008). *Proceedings of the Tenth International Conference on Genetic and Evolutionary Computation Conference (GECCO-2008)*, New York: ACM Press.
11. Obayashi, S., **Deb, K.**, Poloni, C., Hiroyasu, T., Murata, T. (eds.) (2007). *Proceedings of the Evolutionary Multi-Criterion Optimization: 4th International Conference (EMO-2007)*, (LNCS 4403), Berlin, Germany: Springer.
12. Thierens, D., Beyer, H.-G., Bongard, J., Branke, J., Clark J. A., Cliff, D., Congdon, C. B., **Deb, K.**, Doerr, B., Kovacs, T., Kumar, S. Miller, J. F., Moore, J., Neumann, F., Pelikan, M., Poli, R., Sastry, K., Stanley, K. O., Stutzle, T., Watson, R. A. and Wegener, I. (eds.) (2007). *Proceedings of the Ninth International Conference on Genetic and Evolutionary Computation Conference (GECCO-2007)*, New York: ACM Press.
13. **Deb, K.**, Chakroborty, P., Iyenger, N. G. R. and Gupta, S. K. (eds.) (2007). *Advances in Computational Optimization and its Applications*. Delhi: Universities Press.
14. **Deb, K.**, Poli, R., Banzhaf, W., Beyer, H.-G., Burke, E. K., Darwen, P. J., Dasgupta, D., Floreano, D., Foster, J. A., Harman, M., Holland, O., Lanzi, P. L., Spector, L., Tettamanzi, A., Thierens, D., and Tyrrell, A. M. (eds.) (2004). *Proceedings of the Sixth International Conference on Genetic and Evolutionary Computation (GECCO-2004)*. (Lecture Notes in Computer Science (LNCS 3102 and 3103)), Heidelberg, Germany: Springer.
15. Cant-Paz, E., Foster, J. A., **Deb, K.** and Lawrence, D., Roy, R., O'Reilly, U.-M., Beyer, H.-G., Standish, R., Kendall, G., Wilson, S., Harman, M., Wegener, J., Dasgupta, D., Potter, M. A., Schultz, A. C. (eds.) (2003). *Proceedings of the Fifth International Conference on Genetic and Evolutionary Computation (GECCO-2003)*. Berlin, Germany: Springer-Verlag.
16. Fonseca, C., Fleming, P., Zitzler E., **Deb, K.**, and Thiele, L. (eds.) (2003). *Proceedings of the Second Evolutionary Multi-Criterion Optimization (EMO-03) Conference* (Lecture Notes in Computer Science (LNCS) 2632), Heidelberg: Springer.
17. Zitzler, E., **Deb, K.**, Thiele, L., Coello, C. and Corne, D. (eds.) (2001). *Evolutionary multi-criterion optimization (Lecture Notes in Computer Science 1993)*. Heidelberg: Springer.
18. Schoenauer, M., **Deb, K.**, Rudolph, G., Yao, X., Lutton, E., Merelo, J. J., Schwefel, H.-P. (eds.) (2000). *Parallel Problem Solving from nature VI (Lecture Notes in Computer Science 1917)*. Heidelberg: Springer.
19. Koza, J., Banzhaf, W., Chellapilla, K., **Deb, K.** Dorigo, M. Fogel, D., Garzon, M. Goldberg, D., Iba, H. (eds) (1998). *Proceedings of the 1998 genetic programming conference and symposium on genetic algorithms*. San Mateo, CA: Morgan Kaufmann.

20. **Deb, K.** (ed.) (1998). *Genetic algorithms*, A special issue of the *Computer Science and Informatics*, 26(4).
 21. Koza, J, **Deb, K.**, Dorigo, M., Fogel, D., Garzon, M., Iba, H., and Riolo, R. (eds.) (1997). *Proceedings of the 1997 genetic programming conference*. San Mateo, CA: Morgan Kaufmann.
-

Papers in Journals (PUBLISHED)

1. **Deb, K.**, Lu, Z., Kropp, I., Hernandez-Suarez, J. S., Hussein, R., Miller, S., and Nejadhashemi, A. P. (2023). Minimizing Expected Deviation in Upper-level Outcomes Due to Lower-level Decision-making in Hierarchical Multi-objective Problems. *IEEE Transactions on Evolutionary Computation*, 27(3). 505–519.
2. Mittal, S., Saxena, D. K., **Deb, K.** and Goodman, E. D. (2022). Enhanced *Innovized* Progress Operator for Evolutionary Multi- and Many-objective Optimization. *IEEE Transactions on Evolutionary Computation*, 26(5). 961–975.
3. Mittal, S., Saxena, D. K., **Deb, K.** and Goodman, E. D. (2022). A Learning-based *Innovized* Progress Operator for Faster Convergence in Evolutionary Multi-objective Optimization. *ACM Transactions on Evolutionary Learning and Optimization*, 2(1), 1–29.
4. Lopes, C, L. V., Martins, F. V. C., Wanner, E. F., and **Deb, K.** (2022). Analyzing Dominance Move (MIP-DoM) Indicator for Multi- and Many-objective Optimization. *IEEE Transactions on Evolutionary Computation*, 26(3). 476–489.
5. Harrison, K., Bidgoli, A. A., Rahnamayan, S. and **Deb, K.** (2022). Image-Based Benchmarking and Visualization for Large-Scale Global Optimization. *Applied Intelligence*, 52(4). 4161–4191.
6. Lai, L., Fiaschi, L., Cococcioni, M. and **Deb, K.** (2022). Pure and Mixed Lexicographic-Paretian Many-Objective Optimization: State of the Art. *Natural Computing*. 1–16.
7. Kesarwani, P. K. Shukla, P., Dutta, J., and **Deb, K.** (2022). Approximations for Pareto and Proper Pareto solutions and their KKT conditions. *Mathematical Methods of Operations Research*, 96. 123–148.
8. Okasa, A., Müller, N., and **Deb, K.** (2022). Bi-Objective Optimization of Transcritical CO2 Heat Pump Systems. *Energy*, 247, 123469. <https://doi.org/10.1016/j.energy.2022.123469>
9. Davis, L., **Deb, K.**, Siegford, J., and Ali, A. B. (2022). Decision tree analysis to evaluate risks associated with lameness on dairy farms with automated milking systems. *Frontiers in Animal Science*, 3, 999261. <https://doi.org/10.3389/fanim.2022.999261>
10. Islam, J., Li, X., and **Deb, K.** (2022). A Speciation-based Bilevel Niching Method for Multimodal Truss Design Problems. *Journal of Combinatorial Optimization*, 44. 172–206.
11. Dhebar, Y. and **Deb, K.** (2021). Interpretable Rule Discovery Through Bilevel Optimization of Split-Rules of Nonlinear Decision Trees for Classification Problems. *IEEE Transactions on Cybernetics*, 51, (11). 5573–5584.
12. Hernandez-Suarez, J. S., Nejadhashemi, and **Deb, K.** (2021). A Novel Multi-Objective Model Calibration Method for Ecohydrological Applications. *Environmental Modelling and Software*, 144, 105161.

13. Talukder, K. and **Deb, K.** (2021). An Improved Visual Analytics Framework for High-dimensional Pareto-optimal Front: A Case for Multi-objective Portfolio Optimization. *Journal of Banking and Financial Technology*, 5, 105–115.
14. Maskooki, A., **Deb, K.**, and Kallio, M. (2021). A Customized Genetic Algorithm for Bi-objective Routing in a Dynamic Network. *European Journal of Operational Research*, 297(2), 615–629.
15. Lai, L., Fiaschi, L., Cococcioni, M. and **Deb, K.** (2021). Solving Mixed Pareto-Lexicographic Multi-Objective Optimization Problems: The Case of Priority Levels. *IEEE Transactions on Evolutionary Computation*, 25(5), 971–985.
16. Weiner, J., Ernst, A. T., Li, X., Sun, Y. and **Deb, K.** (2021). Solving the Maximum Edge Disjoint Path Problem Using a Modified Lagrangian Particle Swarm Optimisation Hybrid. *European Journal of Operational Research*, 293(3), 847–862.
17. Lu, Z., Sreekumar, G., Goodman, E., Banzhaf, W., **Deb, K.**, and Boddeti, V. (2021). Neural Architecture Transfer. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 43(9), 2971–2989.
18. Mendes, R. S., Lush, V., Wanner, E. F., Martins, F. V. C., Sarubbi, J. F. M. and **Deb, K.** (2021). Online Clustering Reduction based on Parametric and Non-Parametric Correlation for a Many-Objective Vehicle Routing Problem with Demand Responsive Transport. *Expert Systems with Applications*, 170, 114467.
19. Chagas, J. B. C., Blank, J., Wagner, M., Souza, M. J. F., and **Deb, K.** (2021). A Non-Dominated Sorting Based Customized Random-Key Genetic Algorithm for the Bi-Objective Traveling Thief Problem. *Journal of Heuristics*, 27, 267–301.
20. Ahrari, A., Blank, J., **Deb, K.**, and Li, X. (2021). Proximity-Based Surrogate-Assisted Method for Simulation-Based Design Optimization of Cylinder Head Water Jacket. *Engineering Optimization*, 53(9), 1574–1592.
21. Chen, L., **Deb, K.**, Liu, H.-L., and Zhang, Q. (2021). Effect of Objective Normalization and Penalty Parameter on Penalty Boundary Intersection Decomposition Based Evolutionary Many-objective Optimization Algorithms. *Evolutionary Computation Journal*, 29(1), 157–186.
22. Abouhawwash, M. and **Deb, K.** (2021). Reference Point Based Evolutionary Multi-objective Optimization Algorithms with Convergence Properties Using KKTPM and ASF Metrics. *Journal of Heuristics*, 27, 575-614.
23. Lu, Z., Whalen, I., Dhebar, Y., **Deb, K.**, Goodman, E., Banzhaf, W. and Boddeti, V. N. (2021). Multi-Criterion Evolutionary Design of Deep Convolutional Neural Networks for Image Classification. *IEEE Transactions on Evolutionary Computation*, 25(2). 277-291.
24. **Deb, K.**, Roy, P.C., and Hussein, R. (2021). Surrogate Modeling Approaches for Multi-Objective Optimization: Methods, Taxonomy, and Results. *Mathematical and Computational Applications Journal*, 26(1), 5. (<https://doi.org/10.3390/mca26010005>).
25. Raschke, A., Hernandez-Suarez, J. S., Nejadhashemi, A. P., and **Deb, K.** (2021). Multidimensional Aspects of Sustainable Biofuel Feedstock Production. *Sustainability*, 13(3), 1424.

26. Blank, J., **Deb, K.**, Dhebar, Y., Bandaru, S., and Seada, H. (2021). Generating Well-Spaced Points on a Unit Simplex for Evolutionary Many-Objective Optimization. *IEEE Transactions on Evolutionary Computation*, 25(1), 48–60. DOI: 10.1109/TEVC.2020.2992387.
27. Al-Jamimi, H.-A., BinMakhashen, G.M., **Deb, K.**, and Saleh, T. A. (2021). Multiobjective optimization and analysis of petroleum refinery catalytic processes: A review. *Fuel*, 288, 119678. <https://doi.org/10.1016/j.fuel.2020.119678>.
28. Abdel-Basset, M., El-Shahat, D. and **Deb, K.**, and Abouhawwash, M. (2020). Energy-Aware Whale Optimization Algorithm for Real-Time Task Scheduling in Multiprocessor Systems. *Applied Soft Computing*, 93, 106349. <https://doi.org/10.1016/j.asoc.2020.106349>.
29. Ryerkerk, M., Averill, R., **Deb, K.**, and Goodman, E. D. (2020). A Novel Selection Mechanism for Evolutionary Algorithms with Metameric Variable-Length Representations. *Soft Computing*, 24, 1643916452. <https://doi.org/10.1007/s00500-020-04953-1>.
30. Blank, J. and **Deb, K.** (2020). pymoo: Multi-objective Optimization in Python. *IEEE Access*, 8, 89497–89509. (DOI: 0.1109/ACCESS.2020.2990567).
31. Abouhawwash, M., Jameel, M., and **Deb, K.** (2020). A Smooth Proximity Measure for Optimality in Multi-Objective Optimization Using Benson’s Method. *Computers & Operations Research*, 117, 104900. <https://doi.org/10.1016/j.cor.2020.104900>.
32. Singh, H. K. and **Deb, K.** (2020). Investigating the equivalence between PBI and AASF scalarization for multi-objective optimization. *Swarm and Evolutionary Computation*, 53, 100630. <https://doi.org/10.1016/j.swevo.2019.100630>.
33. Shukla, P. K., Dutta, J., **Deb, K.** and Kesarwani, P. (2020). On a Practical Notion of Geoffrion Proper Optimality in Multicriteria Optimization. *Optimization*, 16(7-8), 1513–1539.
34. Fan, Z., Li, W., Cai, X., Li, H., Wei, C., Zhang, Q., **Deb, K.**, and Goodman, E. D. (2020). Difficulty Adjustable and Scalable Constrained Multi-objective Test Problem Toolkit. *Evolutionary Computation Journal*, 28(3), 339–378.
35. Li, K., Liao, M., **Deb, K.**, Min, G., and Yao, X. (2020). Does Preference Always Help? A Holistic Study on Preference-Based Evolutionary Multi-Objective Optimisation Using Reference Points. *IEEE Transactions on Evolutionary Computation*, 20(6). 1078–1096.
36. Ahrari, A., Atai, A.-A., and **Deb, K.** (2020). A Customized Bilevel Optimization Approach for Solving Large-Scale Truss Design Problems. *Engineering Optimization*, 52(12). 2062–2079.
37. Gaur, A., Talukder, K., **Deb, K.**, Tiwari, S., Xu, S., and Jones, D. (2020). Unconventional Optimization for Achieving Well-Informed Design Solutions for an Automobile Industry. *Engineering Optimization*, 52(9). 1542–1560.
38. Sinha, A., Lu, Z., **Deb, K.**, and Malo, P. (2020). Bilevel Optimization based on Iterative Approximation of Multiple Mappings. *Journal of Heuristics*, 26. 151–185.
39. Kropp, I.M., A. P. Nejadhashemi, **Deb, K.**, Abouali, M., Roy, P. C., Adhikari U., and Hoogenboom, G. (2019). A Multi-Objective Approach to Water and Nutrient Efficiency for Sustainable Agricultural Intensification, *Agricultural Systems*, 173, 289–302.

40. Rahnamayan, S., Mahdavi, S., **Deb, K.**, and Bidgoli, A. A. B. (2020). Ranking multi-metric scientific achievements using a concept of Pareto optimality. *Mathematics*, 8(6). 956.
41. Talukder, A. K. A. and **Deb, K.** (2020). PaletteViz: A Visualization Method for Functional Understanding of High-Dimensional Pareto-Optimal Data-Sets to Aid Multi-Criteria Decision Making, *IEEE Computational Intelligence Magazine*, 15(2), 36–48.
42. Chen, L., **Deb, K.**, Liu, H.-L. (2019). Explicit Control of Implicit Parallelism in Decomposition Based Evolutionary Many-Objective Optimization Algorithms. *Computational Intelligence Magazine*, 14(4), 52–64.
43. Ryerkerk, M., Averill, R., **Deb, K.**, and Goodman, E. (2019). A Survey of Evolutionary Algorithms using Metameric Representations. *Genetic Programming and Evolvable Machines*, 20, 441–478.
44. Li, H., **Deb, K.**, and Zhang, Q. (2019). Variable-length Pareto Optimization via Decomposition-based Evolutionary Multiobjective Algorithm. *IEEE Transactions on Evolutionary Computation*, 23(6), 987–999.
45. Seada, H., Abouhawwash, M. and **Deb, K.** (2019). Multi-Phase Balance of Diversity and Convergence in Multiobjective Optimization. *IEEE Transactions on Evolutionary Computation*, 23(3), 503–513.
46. Roy, P. C., Guber, A., Abouali, M., Nejadhashemi, A. P., **Deb, K.**, and Smucker, A. J. M. (2019). Crop Yield Simulation Optimization Using Precision Irrigation and Subsurface Water Retention Technology. *Environmental Modelling and Software*, 119, 433–444.
47. **Deb, K.**, Hussein, R., Roy, P. and Toscano, G. (2019). A Taxonomy for Metamodeling Frameworks for Evolutionary Multi-Objective Optimization. *IEEE Transactions on Evolutionary Computation*, 23(1), 104–116.
48. Roy, P. C., **Deb, K.**, Islam, M. (2019). An Efficient Non-dominated Sorting Algorithm for Large Number of Fronts. *IEEE Transactions on Cybernetics*, 49(3). 859–869.
49. Lu, Z., **Deb, K.**, and Sinha, A. (2018). Uncertainty Handling in Bilevel Optimization for Robust and Reliable Solutions. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 26(2), 1–24.
50. Sinha, A., Soun, T., and **Deb, K.** (2019). Using Karush-Kuhn-Tucker Proximity Measure for Solving Bilevel Optimization Problems. *Swarm and Evolutionary Computation*, 44, 496–510.
51. Fan, Z., Li, W., Cai, X., Li, H., Wei, C., Zhang, Q., **Deb, K.**, and Goodman, E. D. (2019). Push and Pull Search for Solving Constrained Multi-objective Optimization Problems. *Swarm and Evolutionary Computation*, 44, 665–679.
52. Gandomi, A. H., **Deb, K.**, Averill, R. C., Rahnamayan, S., and Omidvar, M. N. (2019). Using Semi-independent Variables to Enhance Optimization Search, *Expert Systems With Applications*, 120, 279–297.
53. Li, K., **Deb, K.**, and Yao, X. (2018). R-Metric: Evaluating the Performance of Preference-Based Evolutionary Multi-Objective Optimization Using Reference Points. *IEEE Transactions on Evolutionary Computation*, 22(6). 821–835.

54. **Deb, K.**, Zhu, L., Kulkarni, S. (2018). Handling Multiple Scenarios in Evolutionary Multi-Objective Numerical Optimization. *IEEE Transactions on Evolutionary Computation*, 22(6). 920–933.
55. Ahrari, A. and **Deb, K.** (2018). A Novel Class of Test Problems for Performance Evaluation of Niching Methods. *IEEE Transactions on Evolutionary Computation*, 22(6). 909–919.
56. Mahdavia, S., Rahnamayanan, S., and **Deb, K.** (2018). Opposition based learning: A literature review. *Swarm and Evolutionary Computation*, 39, 1–23.
57. Liu, H.-L., Chen, L., Zhang, Q., and **Deb, K.** (2018). Adaptively Allocating Search Effort in Challenging Many-Objective Optimization Problems. *IEEE Transactions on Evolutionary Computation*, 22(3). 433–448.
58. Sinha, A., Malo, P., and **Deb, K.** (2018). A Review on Bilevel Optimization: From Classical to Evolutionary Approaches and Applications. *IEEE Transactions on Evolutionary Computation*, 22(2), 276–295.
59. Hernandez-Suarez, J. S., Nejadhashemi, A. P., Kropp, I. M., Abouali, M., Zjang, Z., and **Deb, K.** (2018). Evaluation of the impacts of hydrologic model calibration methods on predictability of ecologically-relevant hydrologic indices. *Journal of Hydrology*, 564, 758–772.
60. Myburgh, C. and **Deb, K.** (2018). Derived Heuristics Based Consistent Optimization of Material Flow in a Gold Processing Plant. *Engineering optimization*, 50(1), 1–18.
61. Chen, Y., Lu, D., Luo, L., Pokhrel, Y., **Deb, K.**, Huang, J., and Ran, Y. (2018). Detecting irrigation extent, frequency, and timing in a heterogeneous arid agricultural region using MODIS time series, Landsat imagery, and ancillary data. *Remote Sensing of Environment*, 204, 197–211.
62. Ng, A. H. C., Siegmund, F., and **Deb, K.** (2018). Reference Point Based Evolutionary Multi-Objective Optimization with Dynamic Resampling for Production Systems Improvement. *Journal of Systems and Information Technology*, 20(4), 489–512.
63. Schwaab, J., **Deb, K.**, Goodman, E., Lautenbach, S., van Striene, M. J., Grêt-Regamey, A. (2018). Improving the Performance of Genetic Algorithms for Land-Use Allocation Problems. *International Journal of Geographical Information Science*, 32(5), 907–930.
64. **Deb, K.**, Abouhawwash, M. and Seada, H. (2017). A Computationally Fast Convergence Measure and Implementation for Single, Multiple and Many-Objective Optimization. *IEEE Transactions on Emerging Topics in Computational Intelligence*, 1(4), 280–293.
65. **Deb, K.** and Myburgh, C. (2017). A Population-Based Fast Algorithm for a Billion-Dimensional Resource Allocation Problem with Integer Variables. *European Journal of Operational Research*, 261(2), 460–474.
66. Mansoor, U., Kessentini, M., Ouni, A., Wimmer, M. and **Deb, K.** (2017). Detection of High-level Model Changes Using Multi-Objective Search-Based Software Engineering. *Empirical Software Engineering*, 22(2), 670–715.
67. Ryerkerk, M., Averill, R. C. **Deb, K.**, and Goodman, E. D. (2017). Solving Metameric Variable-Length Optimization Problems using Genetic Algorithms. *Genetic Programming and Evolvable Machines*, 18(2), 247–277.

68. Ahrari, A., Lei, H., Sharif, M., **Deb, K.**, and Tan, X. (2017). Reliable underwater dipole source characterization in three-dimensional space by an optimally designed artificial lateral line system. *Bioinspiration & Biomimetics*, 12(3), 036010.
69. Ahrari, A., **Deb, K.**, and Pruess, M. (2017). Multimodal Optimization by Covariance Matrix Self-Adaptation Evolution Strategy with Repelling Subpopulations. *Evolutionary Computation Journal*, 25(3), 439–471.
70. Li, K., **Deb, K.**, Zhang, Q. (2017). Efficient Non-domination Level Update Method for Steady-State Evolutionary Multi-objective Optimization. *IEEE Transactions on Cybernetics*, 47(9), 2838–2849.
71. Liu, H.-L., Chen, L., **Deb, K.**, Goodman, E. D. (2017). Investigating the Effect of Imbalance Between Convergence and Diversity in Evolutionary Multi-objective Algorithms. *IEEE Transactions on Evolutionary Computation*, 21(3). 408–425.
72. Ravi, V., Dadabada, P. and **Deb, K.** (2017). Financial Time Series Prediction using Hybrids of Chaos Theory, Multi-Layer Perceptron and Multi-objective Evolutionary Algorithms. *Swarm and Evolutionary Computation*, 36, 136–149.
73. Li, X., Epitropakis, M. G., **Deb, K.**, and Engelbrecht, A. (2017). Seeking Multiple Solutions: An Updated Survey on Niching Methods and Their Applications. *IEEE Transactions on Evolutionary Computation*, 21(4), 518–538.
74. Hirvonen, J., Rehman, H., **Deb, K.**, and Sirén, K. (2017). Neural network Metamodeling in multi-objective optimization of a high latitude solar community. *Solar Energy*, 155, 323–335.
75. Mejía, J. A. H. and Schütze, O., Cuate, O., Lara, A. and **Deb, K.** (2017). RDS-NSGA-II: A memetic algorithm for reference point based multi-objective optimization. *Engineering Optimization*, 49(5). 825–845.
76. Schwaab, J., **Deb, K.**, Goodman, E., Lautenbach, S., van Striene, M., and Grêt-Regamey, A. (2017). Reducing the Loss of Agricultural Productivity due to Compact Urban Development in Municipalities of Switzerland. *Computers, Environment and Urban Systems*, 65, 162–177.
77. Ouni, A, Kessentini, M., Ó Cinnéide, M., Sahraoui, H., **Deb, K.**, and Inoue, K. (2017). MORE: A multi-objective refactoring recommendation approach to introducing design patterns and fixing code smells. *Journal of Software: Evolution and Process*, 29(5), 1–26.
78. Li, X. and **Deb, K.** (2017). A derived heuristics based multi-objective optimization procedure for micro-grid scheduling. *Engineering Optimization*, 49(6), 1078–1096.
79. Seada, H., Abouhawwash, M., and **Deb, K.** (2017). Towards Faster Convergence of Evolutionary Multi-Criterion Optimization Algorithms using Karush-Kuhn-Tucker Optimality Based Local Search. *Computers & Operations Research*, 79, 331–346.
80. Ahrari, A., Hong, L., Montassar, A. S., **Deb, K.**, and Tan, X. (2017). Design Optimization of an Artificial Lateral Line System Incorporating Flow and Sensor Uncertainties. *Engineering Optimization*, 49(2), 328–344.
81. Sinha, A. , Malo, P., and **Deb, K.** (2017). Approximated Set-valued Mapping Approach for Handling Multiobjective Bilevel Problems. *Computers & Operations Research*, 77, 194–209.

82. Sinha, A., Malo, P., and **Deb, K.** (2017). Evolutionary Algorithm for Bilevel Optimization using Approximations of the Lower Level Optimal Solution Mapping. *European Journal of Operational Research*, 257(2), 395–411.
83. Bandaru, S., Ng, A. H. C., and **Deb, K.** (2017). Data Mining Methods for Knowledge Discovery in Multi-Objective Optimization: Part A – Survey. *Expert Systems With Applications*, 70, 139–159.
84. Bandaru, S., Ng, A. H. C., and **Deb, K.** (2017). Data Mining Methods for Knowledge Discovery in Multi-Objective Optimization: Part B – New Developments and Applications. *Expert Systems With Applications*, 70, 119–138.
85. Mansoor, U., Kessentini, M., Maxim, B., and **Deb, K.** (2017). Multi-Objective Code-Smells Detection using Good and Bad Design Examples. *Software Quality Journal*, 25, 529–552.
86. **Deb, K.** and Abouhawwash, M. (2016). An Optimality Theory Based Proximity Measure for Set Based Multi-Objective Optimization. *IEEE Transactions on Evolutionary Computation*, 20(4), 515–528.
87. Mkaouer, M. W., Kessentini, K., Cinnéide, M. O., Hayashi, S., and **Deb, K.** (2016). A Robust Multi-Objective Approach to Balance Severity and Importance of Refactoring Opportunities. *Empirical Software Engineering*, 22, 894–927.
88. Sinha, A., Malo, P., **Deb, K.**, Korhonen, P., and Wallenius, J. (2016). Solving Bilevel Multi-criterion Optimization Problems with Lower Level Decision Uncertainty. *IEEE Transactions on Evolutionary Computation*, 20(2), 199–217.
89. Seada, H. and **Deb, K.** (2016). A Unified Evolutionary Optimization Procedure for Single, Multiple, and Many Objectives. *IEEE Transactions on Evolutionary Computation*, 20(3), 358–369.
90. Altinoz, T. O. and **Deb, K.** (2016). Late Parallelization and Feedback Approaches for Distributed Computation of Evolutionary Multiobjective Optimization Algorithms. *Neural Computing and Applications*. Springer. DOI: 10.1007/s00521-016-2573-4.
91. Datta, R. and **Deb, K.** (2016). Uniform Adaptive Scaling of Equality and Inequality Constraints Within Hybrid Evolutionary-cum-Classical Optimization. *Soft Computing Journal*, 20(6), 2367–2382.
92. Mkaouer, W., Kessentini, M., Bechikh, S., and Cinnéide, M. Ó, and **Deb, K.** (2016). On the Use of Many Quality Attributes for Software Refactoring: A Many-Objective Search-Based Software Engineering Approach. *Empirical Software Engineering*, 21(6), 2503–2545.
93. Ouni, A., Kessentini, M., Sahraoui, H., Inoue, K., and **Deb, K.** (2016). Multi-criteria Code Refactoring using Search-Based Software Engineering: An Industrial Case Study. *ACM Transactions on Software Engineering and Methodology (TOSEM)*, 25(3), 23:1–23:53 (DOI: 10.1145/2932631).
94. Ahrari, A. and **Deb, K.** (2016). An Improved Fully Stressed Design Evolution Strategy for Layout Optimization of Truss Structures. *Computers and Structures*, 164, 127–144.
95. Ahmed, F., Bhattachariya, B. and **Deb, K.** (2016). Structural Topology Optimization using Multi-objective Genetic Algorithm with Constructive Solid Geometry Representation. *Applied Soft Computing*, 39, 240–250.

96. Padhye, N., Mittal, P., and **Deb, K.** (2015). Feasibility preserving constraint handling strategies for real-parameter evolutionary optimization. *Computational Optimization and Applications*, 62(3), 851–890.
97. Sahin, D., Kessentini, M., Wimmer, M. and **Deb, K.** (2015). Model Transformation Testing: A Bi-Level Search-based Software Engineering Approach. *Journal of Software: Evolution and Process*, 27(11), 821–837.
98. Mansoor, U., Kessentini, M., Langer, P., Mayerhofer, T., Wimmer, M., **Deb, K.** (2015). Multi-View Refactoring of Class and Activity Diagrams using a Multi-Objective Evolutionary Algorithm. *Software Quality Journal*, 1–29, Springer. (Online journal, DOI: 10.1007/s11219-015-9284-4)
99. Li, K., **Deb, K.**, Zhang, Q. and Kwong, S. (2015). An evolutionary many-objective optimization algorithm based on dominance and decomposition. *IEEE Transactions on Evolutionary Computation*, 19(5). 694–716.
100. Tutum, C. C., **Deb, K.** and Baran, I. (2015). Constrained Efficient Global Optimization for Pultrusion Process. *Journal of Materials and Manufacturing Processes*, 30, 538–551.
101. Li, K., Zhang, Q., Kwong, S., and **Deb, K.** (2015). Inter-Relationship Based Selection for Decomposition Multiobjective Optimization. *IEEE Transactions on Cybernetics*, 45(10). 2076–2088.
102. Mansoor, U., Kessentini, M., Langer, P., Wimmer M., Bechikh, S. and **Deb, K.** (2015). MOMM: Multi-Objective Model Merging. *Journal of Systems and Software*, 103. 423–439.
103. Ahrari, A., Atai, A. A., and **Deb, K.** (2015). Simultaneous Topology, Shape, and Size Optimization of Truss Structures by Fully Stressed Design Based on Evolution Strategy (FSD-ES). *Engineering Optimization*, 47(8). 1063–1084.
104. Chikumboo, O., Goodman, E., **Deb, K.** (2015). Triple bottomline many-objective-based decision making for a land use management problem. *Journal of Multi-Criterion Decision Analysis*, 22(3-4), 133–159.
105. Bandaru, S., Gaur, A., **Deb, K.**, Khare, V., Chougule, R. and Bandyopadhyay, P. (2015). Development, analysis and applications of a quantitative methodology for assessing customer satisfaction using evolutionary optimization. *Applied Soft Computing Journal*, 30. 265–278.
106. Bandaru, S., Aslam, T., Ng, A. and **Deb, K.** (2015). Generalized Higher-level Automated Innovization with Application to Inventory Management. *European Journal of Operational Research*, 243, 480–496.
107. Li, K., Kwong, S., and **Deb, K.** (2015). A Dual Population Paradigm for Evolutionary Multiobjective Optimization. *Information Sciences*, 309(10), 50–72.
108. Mkaouer, W., Kessentini, M., Shaout, A., Koligheu, P., Bechikh, S., **Deb, K.**, and Ouni, A. (2015). Many-Objective Software Remodularization using NSGA-III. *ACM Transactions on Software Engineering and Methodology (TOSEM)*, 24(3). 17.1–17.44 (DOI: 10.1145/2729974)
109. P. Bhardwaj, B. Dasgupta, and **Deb, K.** (2014). Modelling the Pareto-optimal set using B-spline basis functions for continuous multi-objective optimization problems, *Engineering Optimization*, 46(7), 912–938.

110. Sahin, D., Kessentini, M., Bechikh, S., and **Deb, K.** (2014). Code-Smells Detection as a Bi-Level Problem. *ACM Transactions on Software Engineering and Methodology (TOSEM)*, 24(1). 6:2–6:44. (DOI: 10.1145/2675067)
111. **Deb, K.** and Jain, H. (2014). Evolutionary Many-Objective Optimization Algorithm Using Reference-point Based Non-dominated Sorting Approach, Part I: Solving Problems with Box Constraints. *IEEE Transactions on Evolutionary Computation*, 18(4), 577–601.
112. Jain, H. and **Deb, K.** (2014). An Evolutionary Many-Objective Optimization Algorithm Using Reference-point Based Non-dominated Sorting Approach, Part II: Handling Constraints and Extending to an Adaptive Approach. *IEEE Transactions on Evolutionary Computation*, 18(4), 602–622.
113. **Deb, K.** and Deb, D. (2014). Analysing mutation schemes for real-parameter genetic algorithms. *Int. J. Artificial Intelligence and Soft Computing*, 4(1), Inderscience Enterprises Ltd., 1–28 (DOI: 10.1504/IJAISC.2014.059280)
114. **Deb, K.** and Padhye, N. (2014). Enhancing Performance of Particle Swarm Optimization Through an Algorithmic Link with Genetic Algorithms. *Computational Optimization and Applications*, 57(3), Springer, 761–794.
115. **Deb, K.**, Bandaru, S., Greiner, D., Gaspar-Cunha, A., and Tutum, C. C. (2014). An Integrated Approach to Automated Innovization for Discovering Useful Design Principles: Case Studies from Engineering. *Applied Soft Computing*, 15, Elsevier, 42–56.
116. Sinha, A., Malo, P. and **Deb, K.** (2014). Test Problem Construction for Single-Objective Bilevel Optimization. *Evolutionary Computation Journal*, 22(3), 439–477, MIT Press.
117. Sinha, A., Malo, P., Frantsev, A., and **Deb, K.** (2014). Finding Optimal Strategies in a Multi-Period Multi-Leader-Follower Stackelberg Game Using an Evolutionary Algorithms. *Computers & Operations Research*, 41(1), Elsevier, 374–385.
118. Sinha, A., Korhonen, P., Wallenius, J., and **Deb, K.** (2014). An Interactive Evolutionary Multi-objective Optimization Algorithm with a Limited Number of Decision Maker Calls. *European Journal of Operational Research*, 233(3). Elsevier, 674–688.
119. Tutum, C.C., Baran, I., and **Deb, K.** (2014). Optimum Design of Pultrusion Process via Evolutionary Multi-Objective Optimization. *International Journal of Advanced Manufacturing Technology*, 72(9-12), 1205–1217, Springer.
120. Dashora, A., Lohani, B. and **Deb, K.** (2014). A New Method of Flight Planning for Airborne LiDAR using Genetic Algorithms. *SPIE Journal of Applied Remote Sensing*, 8(1). 083576 DOI: 10.1117/1.JRS.8.083576, Bellingham, WA: SPIE.
121. Sharma, D., **Deb, K.** and Kishore, N. N. (2014). Customized Evolutionary Optimization Procedure for Generating Minimum Weight Compliant Mechanisms. *Engineering Optimization*, 46(1), 39–60, Taylor and Francis.
122. Hamza, N. M., Sarker, R., Essam, D., **Deb, K.**, and Elsayed, S. (2014). A Constraint Consensus Memetic Algorithm for Solving Constrained Optimization Problems. *Engineering Optimization*, 46(11), 1447–1464, Taylor and Francis.
123. Srivastava, R., **Deb, K.**, and Tushyan, R. (2013). An Evolutionary Algorithm based Approach to Design Optimization using Evidence Theory. *ASME Journal of Mechanical Design*, 135(8), 081003-1-12. DOI: 10.1115/1.4024223

124. **Deb, K.**, Gupta, S., Dutta, J. and Ranjan, B. (2013). Solving Dual Problems Using a Coevolutionary Optimization Algorithm. *Journal of Global Optimization*, 57, 891–933.
125. Bandaru, S. and **Deb, K.** (2013). Higher and Lower-level Knowledge Discovery from Pareto-optimal Sets. *Journal of Global Optimization*, 57, 281–298.
126. Tutum, C. C., **Deb, K.**, and Hattel, J. (2013). Multi-Criteria Optimization in Friction Stir Welding Using a Thermal Model with Prescribed Material Flow. *Materials and Manufacturing Processes*, 28, 816–822.
127. Dashora, A., Lohani, B. and **Deb, K.** (2013). Two-Step Procedure of Optimization for Flight Planning Problem for Airborne LiDAR Data Acquisition. *International Journal of Mathematical Modelling and Numerical Optimisation*, 4(4), 323–350, Inderscience Publishers Ltd.
128. Sindhya, K., Miettinen, K., and **Deb, K.** (2013). A Hybrid Framework for Evolutionary Multi-Objective Optimization. *IEEE Transactions on Evolutionary Computation*, 17(4), 495–511.
129. **Deb, K.** and Datta, R. (2013). A Bi-Objective Constrained Optimization Algorithm Using a Hybrid Evolutionary and Penalty Function Approach. *Engineering Optimization*, 45(5), 503–527.
130. Dutta, J., **Deb, K.**, Tulshyan, R. and Arora, R. (2013). Approximate KKT points and a proximity measure for termination. *Journal of Global Optimization*, 56(4), 1463–1499.
131. Ahmed, F. and **Deb, K.** (2013). Multi-objective Optimal Path Planning Using Elitist Non-dominated Sorting Genetic Algorithms. *Journal of Soft Computing*, 17(7), 1283–1299.
132. Li, D., Das, S., Pahwa, A., **Deb, K.** (2013). A multi-objective evolutionary approach for generator scheduling. *Expert Systems with Applications*, 40(18), pp. 7647–7655.
133. Nandi, A. K., **Deb, K.** and Datta, S. (2013). Genetic Algorithm-Based Design and Development of Particle-Reinforced Silicone Rubber for Soft Tooling Process. *Material and Manufacturing Processes*, 28(7), pp. 753–760.
134. Saxena, D., Duro, J. A., Tiwari, A., **Deb, K.**, and Zhang, Q. (2013). Objective Reduction in Many-objective Optimization: Linear and Nonlinear Algorithms. *IEEE Transactions on Evolutionary Computation*, 17(1), 77-99.
135. Padhye, N., Bhardwaj, P., **Deb, K.** (2013). Improving Performance of Differential Evolution Through A Unified Approach to Key Evolutionary Algorithms. *Journal of Global Optimization*, 55(4), 771–799.
136. Ahmed, F., **Deb, K.** and Jindal, A. (2013). Multi-Objective Optimization and Decision Making Approaches to Cricket Team Selection. *Applied Soft Computing*, 13(1), 402–414.
137. Srivastava, R. and **Deb, K.** (2013). An Evolutionary Based Bayesian Design Optimization Approach Under Incomplete Information. *Engineering Optimization*, 45(2), 141–165.
138. Dasgupta, B., Divya, K., Mehta, V. K. and **Deb, K.** (2013). RePAMO: Recursive Perturbation Approach for Multimodal Optimization, *Engineering Optimization*, 45(9), 1073–1090.
139. **Deb, K.**, Ruiz, F., Tewari, R., Cabello, J. M., and Cejudo, J. M. (2012). On the Sizing of a Solar Thermal Electricity Plant for Multiple Objectives Using Evolutionary Optimization. *Applied Soft Computing*, 12(10), 3300–3311.

140. **Deb, K.** and Srivastava, S. (2012). A Genetic Algorithm Based Augmented Lagrangian Method for Constrained Optimization. *Computational Optimization and Applications*, 53(3), 869–902.
141. Nandi, A., Datta, S., **Deb, K.** (2012). Design of particle reinforced polyurethane mould materials for soft tooling process using Multi-objective Evolutionary Algorithms. *Soft Computing*, 16(6), 989–1008.
142. Sinha, A., Saxena, D. K., **Deb, K.**, and Tiwari, A. (2013). Using objective reduction and interactive procedure to handle many-objective optimization problems. *Applied Soft Computing*, 13(1), 415–427.
143. **Deb, K.** and Datta, R. (2012). Hybrid Evolutionary Multi-Objective Optimization and Analysis of Machining Operations. *Engineering Optimization*, 44(6), 685–706.
144. **Deb, K.** and Saha, A. (2012). Multimodal Optimization Using a Bi-Objective Evolutionary Algorithms. *Evolutionary Computation Journal*, 20(1), 27–62.
145. Nandi, A. K., **Deb, K.**, Ganguly, S. and Datta, S. (2012). Investigating the role of metallic fillers in particulate reinforced flexible mould material composites using evolutionary algorithms. *Applied Soft Computing*, 12(1), 28–39.
146. **Deb, K.** and Gupta, S. (2011). Understanding Knee Points in Bicriteria Problems and Their Implications as Preferred Solution Principles. *Engineering Optimization*, 43(11). 1175–1204.
147. Bandaru, S. and **Deb, K.** (2011). Towards automating the discovery of certain innovative design principles through a clustering based optimization technique. *Engineering Optimization*, 43(9), 911–941.
148. Sindhya, K., **Deb, K.** and Miettinen, K. (2011). Improving Convergence of Evolutionary Multi-Objective Optimization with Local Search: A Concurrent-Hybrid Algorithm. *Natural Computation*, 10. 1407–1430.
149. Sharma, D., **Deb, K.** and Kishore, N. N. (2011). Domain-Specific Initial Population Strategy for Compliant Mechanisms Using Customized Genetic Algorithm. *Structural and Multidisciplinary Optimization*, 43(4). 541–554.
150. Padhye, N. and **Deb, K.** (2011). Multi-objective Optimisation and Multi-criteria Decision Making in SLS Using Evolutionary Approaches. *Rapid Prototyping Journal*, 17(6). 458–478.
151. Nicolini, M., Giacomello, C. and **Deb, K.** (2011). Calibration and optimal leakage management for a real water distribution network. *ASCE Journal of Water Resource Planning and Management*, 137(1). 134–142.
152. Tiwari, S., Fadel, G. and **Deb, K.** (2011). AMGA2: Improving the performance of the archive-based micro-genetic algorithm for multi-objective optimization. *Engineering Optimization*, 43(4). 377–401.
153. Nandi, A. K., **Deb, K.**, Datta, S., and Orkas, J. (2011). Studies on effective thermal conductivity of particle-reinforced polymeric flexible mould material composites. *Journal of Materials Design and Applications*, 225(L3), 149–159.
154. Cabello, J. M., Cejudo, J. M., Luque, M. M., Ruiz, R. **Deb, K.**, Tewari, R. (2011). Optimization of the size of a solar thermal electricity plant by means of genetic algorithms. *Renewable Energy*, 36(11). Elsevier, 3146–3153.

155. Nandi, A., Datta, S. and **Deb, K.** (2011). Investigating the Role of Non-metallic Fillers in Particulate-Reinforced Mould Composites using EAs. *Materials and Manufacturing Processes*, 26(3). Taylor and Francis. 541–549.
156. **Deb, K.**, Miettinen, K. and Chaudhuri, S. (2010). Towards an Estimation of Nadir Objective Vector Using a Hybrid of Evolutionary and Local Search Approaches. *IEEE Transactions on Evolutionary Computation*, 14(6). 821–841.
157. **Deb, K.** and Sinha, A. (2010). An Efficient and Accurate Solution Methodology for Bilevel Multi-Objective Programming Problems Using a Hybrid Evolutionary-Local-Search Algorithm. *Evolutionary Computation Journal*, 18(3). 403–449.
158. **Deb, K.**, Sinha, A., Korhonen, P., and Wallenius, J. (2010). An Interactive Evolutionary Multi-Objective Optimization Method Based on Progressively Approximated Value Functions. *IEEE Transactions on Evolutionary Computation*, 14(5). 723–739.
159. **Deb, K.** and Köksalan, M. (2010). Guest Editorial: Special Issue on Preference-Based Multiobjective Evolutionary Algorithms. *IEEE Transactions on Evolutionary Computation*, 14(5), 669–670.
160. Chaudhuri, S. and **Deb, K.** (2010). An Interactive Evolutionary Multi-Objective Optimization and Decision Making Procedure. *Applied Soft Computing Journal*, 10, 496–511.
161. **Deb, K.**, Gupta, S., Daum, D., Branke, J., Mall, A., and Padmanabhan, D. (2009). Reliability-Based Optimization Using Evolutionary Algorithms. *IEEE Transactions on Evolutionary Computation*, 13(5), 1054–1074.
162. Kudikala, R., **Deb, K.**, and Bhattacharya, B. (2009). Multi-Objective Optimization of Piezoelectric Actuator Placement for Shape Control of Plates Using Genetic Algorithms. *ASME Journal of Mechanical Design*, 131(9), 091007-1–11.
163. Mittal, S. and **Deb, K.** (2009). Optimal strategies of the iterated prisoner’s dilemma problem for multiple conflicting objectives. *IEEE Transactions on Evolutionary Computation*, 13(3), 554–565.
164. Pettersson, F., Saxén, H. and **Deb, K.** (2009). Genetic algorithm based multicriteria optimization of iron-making in the blast furnace. *Journal of Materials and Manufacturing Processes*, 24(3), 343–349.
165. Branke, J., Scheckenbach, B. Stein, M., **Deb, K.** and Schmeck, H. (2009). Portfolio optimization with an envelope based evolutionary multi-objective optimization. *European Journal on Operations Research (EJOR)*, 199(3), 684–693.
166. **Deb, K.** (2008). Scope of stationary multi-objective evolutionary optimization: A case study on a hydro-thermal power dispatch problem. *Journal of Global Optimization*, 41(4), 479–515.
167. Dyer, J. S., Fishburn, P. C., Steuer, R. E., Wallenius, J., Zionts, S. and **Deb, K.** (2008). Multiple criteria decision making, multi-attribute utility theory: Recent accomplishments and what lies ahead. *Management Science*, 54(7), 1336–1349.
168. Bandyopadhyay, S., Saha, S., Maulik, U. and **Deb, K.** (2008). A simulated annealing-based multiobjective optimization algorithm: AMOSA, *IEEE Transactions on Evolutionary Computation*, 12(3), 269–283.

169. Bui, L. T., **Deb, K.**, Abbass, H. A. and Essam, D. (2008). Interleaving guidance in evolutionary multiobjective optimization. *Journal of Computer Science and Technology*, 23(1), 44–63.
170. **Deb, K.** and Tiwari, S. (2008). Omni-optimizer: A generic evolutionary algorithm for global optimization. *European Journal of Operational Research (EJOR)*, 185(3), 1062–1087.
171. Datta, D., Fonseca, C. M. and **Deb, K.** (2008). A multi-objective evolutionary algorithm to exploit the similarities of resource allocation problems. *Journal of Scheduling*, 11(6), 405–419.
172. **Deb, K.** (2007). Current Trends in Evolutionary Multi-objective Optimization. *International Journal for Simulation and Multidisciplinary Optimisation*, 1(1), 1–8.
173. Datta, D. and **Deb, K.**, Fonseca, C. M., Lobo, F. G., Condado, P. A. and Seixas, J. (2007). Multi-objective evolutionary algorithm for land-use management problem, *International Journal of Computational Intelligence Research (IJCIR)*, 3(4), 371–384.
174. Shukla, P. and **Deb, K.** (2007). On Finding Multiple Pareto-Optimal Solutions Using Classical and Evolutionary Generating Methods. *European Journal of Operational Research (EJOR)*, 181(3), 1630–1652.
175. Sengupta, T. K., **Deb, K.**, Talla, S. B. (2007). Control of flow using genetic algorithm for a circular cylinder executing rotary oscillation. *Computers & Fluids*, 36(3), 578–600.
176. Jain, N. K., Jain, V. K. and **Deb, K.** (2007). Optimization of process parameters of mechanical type advanced machining processes using genetic algorithms. *International Journal of Machine Tools and Manufacture*, 47(6), 900–919.
177. **Deb, K.** and Gupta, H. (2006). Introducing robustness in multi-objective optimization. *Evolutionary Computation Journal*, 14(4), 463–494.
178. **Deb, K.**, Sundar, J., Reddy, Uday, B., and Chaudhuri, S. (2006). Reference point based multi-objective optimization using evolutionary algorithms. *International Journal of Computational Intelligence Research (IJCIR)*, 2(6), 273–286.
179. **Deb, K.**, Mohan, M., and Mishra, S. (2005). Evaluating the ϵ -domination based multi-objective evolutionary algorithm for a quick computation of Pareto-optimal solutions. *Evolutionary Computation Journal*, 13(4), 501–525.
180. **Deb, K.** (2005). A population-based algorithm-generator for real-parameter optimization. *Soft Computing Journal*, 9, 236–253.
181. **Deb, K.** and Tiwari, S. (2005). Multi-objective optimization of a leg mechanism using genetic algorithms. *Engineering Optimization*, 37(4), 325–350.
182. Agrawal, S., Dhande, S. G., **Deb, K.**, de Beer, D. J., and Truscott, M. (2005). Synthesis of mechanical error in rapid prototyping processes using stochastic approach. *New Generation Sciences*, 3(1). 1–19.
183. **Deb, K.**, Jain, P., Gupta, N., and Maji, H. (2004). Multi-Objective placement of electronic components using evolutionary algorithms. *IEEE Transactions on Components and Packaging Technologies*, 27(3), 480–492.
184. **Deb, K.** (2004). An ideal evolutionary multi-objective optimization procedure. *IPSP Transactions on Mathematical Modeling and Its Applications*, 45(SIG 2), 1–11.

185. **Deb, K.**, Mitra, K., Dewri, R. and Majumdar, S. (2004). Towards a better understanding of the epoxy polymerization process using multi-objective evolutionary computation. *Chemical Engineering Science*, 59(20), 4261–4277.
186. Farina, M., **Deb, K.**, Amato, P. (2004). Dynamic multiobjective optimization problems: Test cases, approximations, and applications. *IEEE Transactions on Evolutionary Computation*, 8(5), 425–442.
187. **Deb, K.** (2003). Unveiling innovative design principles by means of multiple conflicting objectives. *Engineering Optimization*, 35(5), 445–470.
188. **Deb, K.** and Reddy, A. R. (2003). Reliable classification of two-class cancer data using evolutionary algorithms. *BioSystems*, 72(1-2), 111–129.
189. **Deb, K.** and Jain, S. (2003). Multi-speed gearbox design using multi-objective evolutionary algorithms. *ASME Transactions on Mechanical Design*, 125(3). 609–619.
190. **Deb, K.**, Reddy, A. R. and Singh, G. (2003). Optimal scheduling of casting sequence using genetic algorithms. *Journal of Materials and Manufacturing Processes*, 18(3). 409–432.
191. **Deb, K.**, Anand, A., and Joshi, D. (2002). A computationally efficient evolutionary algorithm for real-parameter optimization. *Evolutionary Computation Journal*, 10(4), 371–395.
192. **Deb, K.**, Pratap, A, Agarwal, S., and Meyarivan, T. (2002). A fast and elitist multi-objective genetic algorithm: NSGA-II. *IEEE Transaction on Evolutionary Computation*, 6(2), 181–197.
193. Pratihar, D. K., **Deb, K.**, Ghosh, A. (2002). Optimal path and gait generations simultaneously of a six-legged robot using a GA-fuzzy approach. *Robotics and Autonomous Systems*, 41, 1–21.
194. Mukherjee, A., Biswas, R., **Deb, K.**, and Mathur, A. P. (2002). Multi-objective evolutionary algorithms for the risk-return trade-off in bank loan management. *International Transactions in Operations Research*, 9, 583–597.
195. Laumanns, M., Thiele, L., **Deb, K.** and Zitzler, E. (2002). Combining convergence and diversity in evolutionary multiobjective optimization. *Evolutionary Computation Journal*, 10(3), 263–282.
196. **Deb, K.** (2001). Nonlinear goal programming using multi-objective genetic algorithms. *Journal of the Operational Research Society*, 52(3), 291–302.
197. **Deb, K.** and Gulati, S. (2001). Design of truss-structures for minimum weight using genetic algorithms. *Journal of Finite Elements in Analysis and Design*, 37(5), 447–465.
198. **Deb, K.** and Beyer, H.-G. (2001). Self-adaptive genetic algorithms with simulated binary crossover. *Evolutionary Computation Journal*, 9(2), 197–221.
199. Beyer, H.-G. and **Deb, K.** (2001). On self-adaptive features in real-parameter evolutionary algorithms. *IEEE Transactions on Evolutionary Computation*, 5(3). 250–270.
200. Chakroborty, P., **Deb, K.**, and Sharma, R. K. (2001). Optimal fleet size distribution and scheduling of transit systems using genetic algorithms. *Transportation Planning and Technology*, 24(3), 209–226.

201. **Deb, K.** (2000). An efficient constraint handling method for genetic algorithms. *Computer Methods in Applied Mechanics and Engineering*, 186, 311–338.
202. **Deb, K.** and Horn. J. (2000). Introduction to the special issue: Multicriterion optimization. *Evolutionary Computation Journal*, 8(2), iii-iv.
203. Goldberg, D. E. and **Deb, K.** (Eds.) (2000). *Special issue: Genetic and evolutionary computation - Preface*. *Computer Methods in Applied Mechanics and Engineering*, 186(2-4). 121–124.
204. Pratihari D. K., Deb K., Ghosh A. (2000). Optimal turning gait of a six-legged robot using GA-Fuzzy approach, *Artificial Intelligence for Engineering Design, Analysis and Manufacturing (AIEDM) Journal*, (14), 207–219.
205. Chakraborti, N., **Deb, K.**, and Jha, A. (2000). A genetic algorithm based heat transfer analysis of a bloom re-heating furnace. *Steel Research*, 71, 396–402.
206. Michalewicz, Z., **Deb, K.**, Schmidt, M., and Stidsen, T. (2000). Test-case generator for nonlinear continuous parameter optimization techniques. *IEEE Trans. on Evolutionary Computation*, 4(3), 197–215.
207. Zitzler, E., **Deb, K.**, and Thiele, L. (2000). Comparison of multiobjective evolutionary algorithms: Empirical results. *Evolutionary Computation Journal*, 8(2), 173–195.
208. Sivakumar, K., Iyengar, N. G. R., and **Deb, K.** (2000). Optimum design of laminated composite plates with cut-outs using genetic algorithm (GA), variable metric method (DFP) and complex search methods. *Engineering Optimization*, 32, 635–657.
209. **Deb, K.** (1999). An introduction to genetic algorithms. *Sādhanā*, 24(4), 293–315.
210. **Deb, K.** (1999). Multi-objective genetic algorithms: Problem difficulties and construction of test problems. *Evolutionary Computation Journal*, 7(3), 205–230.
211. **Deb, K.** and Agrawal, S. (1999). Understanding interactions among genetic algorithm parameters. *Foundations of Genetic Algorithms V*, 265–286.
212. Pratihari, D., **Deb, K.**, and Ghosh, A. (1999). Fuzzy-genetic algorithms and time-optimal obstacle-free path generation for mobile robots. *Engineering Optimization*, 32, 117–142.
213. Pratihari D., **Deb, K.**, and Ghosh A. (1999). Design of a genetic-fuzzy system for planning crab gaits of a six-legged robot, *Journal of Computing and Information Technology*, 7(1), 93–101.
214. Pratihari, D., **Deb, K.**, and Ghosh, A. (1999). A genetic-fuzzy approach for mobile robot navigation among moving obstacles. *International Journal of Approximate Reasoning*, 20(2), 145–172.
215. Sivakumar, K., Iyengar, N. G. R., and **Deb, K.** (1999). Free vibration of laminated composite plates with cutout. *Journal of Sound and Vibration*, 221(3), 443–470.
216. Sivakumar, K., Iyengar, N. G. R., and **Deb, K.** (1999). Optimum design of laminated composite plates with cutouts undergoing large amplitude oscillation, *Advanced Composite Materials*, 8(4), 295–316.

217. Sivakumar, K., Iyengar, N. G. R., and **Deb, K.** (1999). Optimum design of laminated composite plates undergoing large amplitude oscillations, *Applied Composite Materials*, 6(2), 87–98.
218. **Deb, K.** (1998). A quick computation of factor of safety for biaxial stress states. *Transactions of ASME: Journal of Mechanical Design*, 120, 721–726.
219. **Deb, K.** and Chakraborty, P. (1998). Time scheduling of transit systems with transfer considerations using genetic algorithms. *Evolutionary Computation Journal*, 6(1), 1–24.
220. **Deb, K.** and Goyal, M. (1998). A flexible optimization procedure for mechanical component design based on genetic adaptive search. *Transactions of the ASME: Journal of Mechanical Design*, 120(2), 162–164.
221. Mitra, K., **Deb, K.**, and Gupta, S. K. (1998). Multiobjective dynamic optimization of an industrial Nylon 6 semibatch reactor using genetic algorithms. *Journal of Applied Polymer Science*, 69(1), 69–87.
222. Sen, S., Narshimhan, S. and **Deb, K.** (1998). Sensor network design of linear processes using genetic algorithms. *Computers & Chemical Engineering*, 22(3), 385–390.
223. Chakraborty, P., **Deb, K.**, and Srinivas, B. (1998). Network-wide optimal scheduling of transit systems using genetic algorithms. *Computer Aided Civil and Infrastructure Engineering*, 13, 363–376.
224. Deo, B., **Deb, K.**, Jha, S., Sudhakar, V., and Sridhar, N. V. (1998). Optimal operating conditions for the primary end of an integrated steel plant: Genetic adaptive search and classical techniques. *ISIJ International*, 38(1), 98–105.
225. Sivakumar, K., Iyengar, N. G. R., and **Deb, K.** (1998). Optimum design of laminated composite plates with cutouts using a genetic algorithm, *Journal of Composite Structures*, 42(3), 265–279.
226. Upreti, S. and Deb, K. (1997). Optimal design of an ammonia synthesis reactor using genetic algorithms. *Computers & Chemical Engineering*, 21(1), 87–92.
227. Sivakumar, K., Iyengar, N. G. R., and **Deb, K.** (1997). Optimum design of laminated composite rectangular plates with cutouts using genetic algorithms. *Indian Journal of Engineering and Materials Science*, 4, 189–195.
228. Chakraborty, U., **Deb, K.**, and Chakraborty, M. (1996). Analysis of selection algorithms: A Markov chain approach. *Evolutionary Computation Journal*, 4(2), 132–167.
229. **Deb, K.**, and Goyal, M. (1996). A combined genetic adaptive search (GeneAS) for engineering design. *Computer Science and Informatics*, 26(4), 30–45.
230. Bagchi, T. and **Deb, K.** (1996). Calibration of GA Parameters: The design of experiments approach. *Computer Science and Informatics*, 26(4), 46–56.
231. Mahesh, K., Kishore, N. N., and **Deb, K.** (1996). Optimal design of composite turbine blade using genetic algorithms. *Adv. Composite Materials*, 5(2), 87–98.
232. **Deb, K.** and Kumar, A. (1995). Real-coded genetic algorithms with simulated binary crossover: Studies on multimodal and multiobjective problems. *Complex Systems*, 9(6), 431–454.

233. **Deb, K.** and Agrawal, R. B. (1995). Simulated binary crossover for continuous search space. *Complex Systems*, 9, 115–148.
234. Chakroborty, P., **Deb, K.**, and Subrahmanyam, P. S. (1995). Optimal scheduling of urban transit scheduling systems using genetic algorithms. *ASCE Journal of Transportation Engineering*, 121(6), 544–553.
235. Srinivas, N. and **Deb, K.** (1995). Multiobjective function optimization using nondominated sorting genetic algorithms, *Evolutionary Computation Journal*, 2(3), 221–248.
236. Rastogi, R., **Deb, K.**, Deo, B., and Boom, R. (1994). Genetic Adaptive Search (GAS) Model of Hot Metal Desulphurization, *Steel Research*, 65(11), 472–478.
237. Deo, B., Datta, A., Kukreja, B., Rastogi, R., and **Deb, K.** (1994). Optimization of back propagation algorithm and GAS-assisted ANN models for hot metal desulphurization. *Steel Research*, 65 (12), 528–533.
238. **Deb, K.** and Goldberg, D. E. (1994). Sufficient conditions for deception in arbitrary binary functions. *Annals of Mathematics and Artificial Intelligence*, 10, 385–408.
239. Horn, J., Goldberg, D. E., and **Deb, K.** (1994). Implicit niching in a learning classifier system: Nature’s way. *Evolutionary Computation Journal*, 2(1), 37–66.
240. **Deb, K.**, Horn, J., and Goldberg, D. E. (1993). Multimodal deceptive functions. *Complex Systems*, 7, 131–153.
241. Goldberg, D. E., **Deb, K.**, and Theirens, D. (1993). Toward a better understanding of mixing in genetic algorithms. *Journal of SICE*, 32(1), 10–16.
242. **Deb, K.** and Goldberg, D. E. (1992). Analyzing deception in trap functions. *Foundations of Genetic Algorithms II*, 93–108.
243. Goldberg, D. E., **Deb, K.**, and Clark, J. H. (1992). Accounting for the noise in the sizing of populations. *Foundations of Genetic Algorithms II*, 127–140.
244. Goldberg, D. E., **Deb, K.**, and Clark, J. H. (1992). Genetic algorithms, noise, and the sizing of populations. *Complex Systems*, 6, 333–362.
245. Wilson, H., **Deb, K.** and Singh, D. (1992). Numerical accuracy in the integration of cable dynamics equations. *International Journal of Nonlinear Mechanics*, 27(5), 795–804.
246. **Deb, K.** (1991). Optimal design of a welded beam structure via genetic algorithms, *AIAA Journal*, 29(11), 2013–2015.
247. Goldberg, D. E. and **Deb, K.** (1991). A comparative analysis of selection schemes used in genetic algorithms, *Foundations of Genetic Algorithms, I*, 69-93.
248. Goldberg, D. E., **Deb, K.** and Korb, B. (1990). Messy genetic algorithms revisited: Studies in mixed size and scale. *Complex Systems*, 4, 415–444.
249. Goldberg, D. E., Korb, B., and **Deb, K.** (1989). Messy genetic algorithms: Motivation, analysis, and first results, *Complex Systems*, 3, 493–530.
250. Wilson, H. and **Deb, K.** (1990). Evaluation of high order single step integrators for structural response calculations, *Journal of Sound and Vibration*, 141(1), 55–70.

251. Wilson, H. and **Deb, K.** (1989). Inertial properties of tapered cylinders and partial volumes of revolution, *Computer Aided Design*, 21(7), 456–462.
-

Papers in Journals (ACCEPTED)

1. Suresh, A. and **Deb, K.** (in press). Machine Learning Based Prediction of New Pareto-Optimal Solutions from Pseudo-weights. *IEEE Transactions on Evolutionary Computation*. IEEE Press.
 2. Gupta, P., Pratihari, D. K., and **Deb, K.** (in press). Analysis and Optimization of Gait Cycle of 25-DOF NAO Robot using Particle Swarm Optimization and Genetic Algorithms. *International Journal of Humanoid Robotics*. World Scientific.
 3. Guha, R., Suresh, A., Defrain, J., and **Deb, K.** (in press). Machine Learning Based Prediction and Analysis for Virtual Metrology Tasks in Long Manufacturing Processes. *Materials and Manufacturing Processes*. Taylor & Francis.
 4. **Deb, K.**, Lopes, C. L., Martins, F. V. C., and Wanner, E. F. (in press). Identifying Pareto Fronts Reliably Using a Multi-Stage Reference-vector-based Framework. *IEEE Transactions on Evolutionary Computation*. IEEE Press.
 5. Ghosh, A., **Deb, K.**, Averill, R., and Goodman, E. (in press). An Interactive Knowledge-based Multi-objective Evolutionary Algorithm Framework for Practical Optimization Problems. *IEEE Transactions on Evolutionary Computation*. IEEE Press.
 6. Zhang, Y., Narayanan, S., Cole, D., and **Deb, K.** (in press). Maximizing Disability Diversity, Language Diversity and Productivity: A Study in Apparel Manufacturing. *Production and Operations Management*. Wiley.
 7. Yadav, D., Ramu, P., and **Deb, K.** (in press). Visualization-aided Multi-Criteria Decision-Making using Interpretable Self-Organizing Maps. *European Journal of Operational Research*. Springer.
 8. Gandomi, A. H., **Deb, K.**, Averill, R. C., Rahnamayan, S., and Omidvar, M. N. (2023). Variable Functioning and Its Application to Large Scale Steel Frame Design Optimization. *Structural and Multidisciplinary Optimization*, 66(13), <https://doi.org/10.1007/s00158-022-03435-2>
 9. Khoshoo, B., Blank, J., Pham, T. Q., **Deb, K.** and Foster, S. N. (in press). Optimal Design of Electric Machine with Efficient Handling of Constraints and Surrogate Assistance. *Engineering Optimization*. Taylor & Francis. DOI: 10.1080/0305215X.2022.2152805.
 10. Ghosh, A., **Deb, K.**, Goodman, E., and Averill, R. (in press). A User-guided Innovization-based Evolutionary Algorithm Framework for Practical Multi-Objective Optimization Problems. *Engineering Optimization*. Taylor & Francis. DOI: 10.1080/0305215X.2022.2144275.
 11. Dhebar, Y., **Deb, K.**, Nagesh Rao, S., Zhu, L. and Filev, D. (in press). Towards Interpretable-AI Policies using Evolutionary Nonlinear Decision Trees for Discrete Action Systems. *IEEE Transactions on Cybernetics*. IEEE Press. DOI: 10.1109/TCYB.2022.3180664.
-

1. **Deb, L.**, Gondkar, A., and Suresh, A. (2023). Learning to Predict Pareto-optimal Solutions From Pseudo-weights. *Proceedings of the Evolutionary Multi-Criterion Optimization (EMO-2023) Conference*. Springer. (Leiden, The Netherlands). Springer. (pp. 191–204)
2. Santoshkumar, B., **Deb, K.**, Chen, L. (2023). Eliminating Non-dominated Sorting from NSGA-III. *Proceedings of the Evolutionary Multi-Criterion Optimization (EMO-2023) Conference*. Springer. (pp. 71–85).
3. Guha, R. and **Deb, K.** (2023). RegEMO: Sacrificing Pareto-Optimality for Regularity in Multi-objective Problem-Solving. *Proceedings of the Evolutionary Multi-Criterion Optimization (EMO-2023) Conference*. Springer. (pp. 29–42).
4. Ghosh, A., **Deb, K.**, Averill, R., and Goodman, E. (2023). IK-EMOViz: An Interactive Knowledge-based Evolutionary Multi-objective Optimization Framework. *Proceedings of the Evolutionary Multi-Criterion Optimization (EMO-2023) Conference*. Springer. (pp. 606–619).
5. Bhasin, D., Swami, S., Sharma, S., Sah, S., Saxena, D. K. and **Deb, K.** (2023). Investigating Innovized Progress Operators with Different Machine Learning Methods. *Proceedings of the Evolutionary Multi-Criterion Optimization (EMO-2023) Conference*. Springer. (pp. 134–146).
6. Yadav, D., Palaniappan, R., and **Deb, K.** (2022). Visualization-aided Multi-criterion Decision-making Using Reference Direction Based Pareto Race. *Proceedings of IEEE Symposium Series in Computational Intelligence (SSCI-2022)*. IEEE Press.
7. Lopes, C., Martins, F. V. C., Wanner, E., and **Deb, K.** (2022). A Computationally Fast but Approximate MIP-DoM Calculation for Multi-Objective Optimization. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2022)*, (Boston, USA). (pp. 340–343).
8. Toscano, G., Hernandez-Suarez, J. S., Blank, J., Nejadhashemi, P., **Deb, K.** and Linker, L. (2022). Large-scale Multi-objective Optimization for Water Quality in Chesapeake Bay Watershed. *Proceedings of 2022 Congress on Evolutionary Computation (CEC-2022)*, IEEE Press. (pp. 1–8). DOI: 10.1109/CEC55065.2022.9870286.
9. Blank, J. and **Deb, K.** (2022). Parameter Tuning and Control: A Case Study on Differential Evolution With Polynomial Mutation. *Proceedings of 2022 Congress on Evolutionary Computation (CEC-2022)*, IEEE Press. (pp. 1–8). DOI: 10.1109/CEC55065.2022.9870219.
10. Blank, J. and **Deb, K.** (2021). PSA: A Family of Probabilistic Surrogate-Assisted Algorithms for Single-Objective Optimization. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2021)*. ACM press. (pp. 652–659).
11. Lopes, C., Martins, F. V. C., Wanner, E. F. and **Deb, K.** (2021). An Approximate MIP-DoM Calculation for Multi-objective Optimization using Affinity Propagation Clustering Algorithm. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2021)*. ACM press. (pp. 185–186).
12. **Deb, K.** and Talukder, A. K. M. (2021). Visualization-based Multi-Criterion Decision Making with NIMBUS Method Using PaletteViz. *Symposium Series on Computational Intelligence (SSCI-2021)*. IEEE Press.(pp. 1-8).

13. Ghosh, A., Dhebar, Y., Guha, R., **Deb, K.**, Nagesh Rao, S., Zhu, L., Tseng, E. and Filev, D. (2021). Interpretable AI Agent Through Nonlinear Decision Trees for Lane Change Problem. *Symposium Series on Computational Intelligence (SSCI-2021)*. IEEE Press. (pp. 1-8). DOI: 10.1109/SSCI50451.2021.9659552.
14. Khoshoo, B., Blank, Pham, T., **Deb, K.** and Foster, S. (in press). Optimized Electric Machine Design Solutions with Efficient Handling of Constraints. *Symposium Series on Computational Intelligence (SSCI-2021)*. IEEE Press.
15. Suresh, A., Kongmanee, J., Deb, K. and Boddeti, V. N. (2021). Multi-objective Coevolution and Decision-making for Cooperative and Competitive Environments, *Proceedings of the 2021 IEEE Congress on Evolutionary Computation (CEC-2021)*, IEEE Press. (pp. 1601-1608).
16. Sharma, S., Blank, J., **Deb, K.** and Panigrahi, B. K. (2021). Ensembled Crossover based Evolutionary Algorithm for Single and Multi-objective Optimization. *Proceedings of IEEE Congress on Evolutionary Computation (CEC-2021)*. IEEE Press. (pp. 1439–1446).
17. Mendes, R., Wanner, E., Martins, F., and **Deb, K.** (2021). Aggregation or Selection? Clustering Many Objectives for Vehicle Routing Problem with Demand Responsive. *Proceedings of IEEE Congress on Evolutionary Computation (CEC-2021)*. IEEE Press. (pp. 1257–1264).
18. Suresh, A., **Deb, K.** and Bodetti, V. (2021). Towards Multi-objective Co-evolutionary Problem Solving. *Proceedings of Evolutionary Multi-Criterion Optimization (EMO-2021)*, (Shenzhen, China), Lecture Notes in Computer Science (LNCS) 12654, Springer. (pp. 139–151).
19. Nagar, D., Ramu, P., **Deb, K.** (in press). Interpretable Self-Organizing Maps (iSOM) for Visualization of Pareto Front in Multiple Objective Optimization. *Proceedings of Evolutionary Multi-Criterion Optimization (EMO-2021)*, (Shenzhen, China), Lecture Notes in Computer Science (LNCS) 12654, Springer. (pp. 645–655).
20. **Deb, K.**, Mittal, S., Saxena, D., and Goodman, E. (in press). Embedding a Repair Operator in Evolutionary Single and Multi-Objective Algorithms – An Exploitation-Exploration Perspective. *Proceedings of Evolutionary Multi-Criterion Optimization (EMO-2021)*, (Shenzhen, China), Lecture Notes in Computer Science (LNCS) 12654, Springer. (pp. 89–101).
21. Ghosh, A., **Deb, K.**, Averill, R., Goodman, E. (in press). Combining User Knowledge and Online Innovization for Faster Solution to Multi-Objective Design Optimization Problems. *Proceedings of Evolutionary Multi-Criterion Optimization (EMO-2021)*. (Shenzhen, China), Lecture Notes in Computer Science (LNCS) 12654, Springer, (pp. 102–114).
22. Blank, J., and **Deb, K.** (in press). Constrained Bi-objective Surrogate-Assisted Optimization of Problems with Heterogeneous Evaluation Times: Expensive Objectives and Inexpensive Constraints. *Proceedings of Evolutionary Multi-Criterion Optimization (EMO-2021)*, (Shenzhen, China), Springer. (pp. 257–269).
23. Zhu, S., Xu, L., Goodman, E., **Deb, K.**, and Lu, Z. (2021). The (M-1)+1 Framework of Relaxed Pareto Dominance for Evolutionary Many-Objective Optimization. *Proceedings of Evolutionary Multi-Criterion Optimization (EMO-2021)*. (Shenzhen, China), Lecture Notes in Computer Science (LNCS) 12654, Springer, (pp. 349–361).

24. Lai, L., Fiaschi, L., Cococcini, M., and **Deb, K.** (2021). Handling Priority Levels in Mixed Pareto-Lexicographic Many-Objective Optimization Problems *Proceedings of Evolutionary Multi-Criterion Optimization (EMO-2021)*. (Shenzhen, China), Lecture Notes in Computer Science (LNCS) 12654, Springer, (pp. 362–374).
25. Lu, Z., **Deb, K.**, Goodman, E., Banzhaf, W., and Boddeti, V. (2020). NSGANetV2: Evolutionary Multi-objective Surrogate-Assisted Neural Architecture Search. 16th European Conference on Computer Vision (ECCV-2020), (Glasgow, UK). (pp. 35–51). Lecture Notes in Computer Science, vol. 12346.
26. Blank, J. and **Deb, K.** (2020). A Running Performance Metric and Termination Criterion for Evaluating Evolutionary Multi- and Many-objective Optimization Algorithms. *Proceedings of IEEE Congress on Evolutionary Computation (CEC-2020)*, (Glasgow, UK). (pp. 1–8). DOI: 10.1109/CEC48606.2020.9185546.
27. Mittal, S., Saxena, D. K. and **Deb, K.** (2020). A Unified Automated Innovization Framework Using Threshold-based Clustering. *Proceedings of Congress on Evolutionary Computation (CEC-2020)*, (Glasgow, UK). (pp. 1–8). DOI: 10.1109/CEC48606.2020.9185879.
28. Smedberg, H., Bandaru, S., Ng, A. H. C. and **Deb, K.** (2020). Trend Mining 2.0: Automating the Discovery of Variable Trends in the Objective Space. *Proceedings of IEEE Congress on Evolutionary Computation (CEC-2020)*, (Glasgow, UK). (pp. 1–8). DOI: 10.1109/CEC48606.2020.9185892.
29. Ghosh, A., Goodman, E. D., **Deb, K.**, Averill, R. and Diaz, A. (2020). A Large-scale Bi-objective Optimization of Solid Rocket Motors Using Innovization. *Proceedings of IEEE Congress on Evolutionary Computation (CEC-2020)*, (Glasgow, UK). (pp. 1–8). DOI: 10.1109/CEC48606.2020.9185861.
30. Talukder A. K. M. and **Deb, K.** (2020). PaletteViz with Star-coordinates: An Improved Method for High-dimensional Pareto-optimal Front Visualization and Decision-making. *Proceedings of IEEE Symposium Series on Computational Intelligence (SSCI-2020)*. (Canberra, Australia). (pp. 2186–2193). DOI: 10.1109/SSCI47803.2020.9308439.
31. Dhebar, Y., Gupta, S. and **Deb, K.** (2020). Evaluating Nonlinear Decision Trees for Binary Classification Tasks with Other Existing Methods. *Proceedings of IEEE Symposium Series on Computational Intelligence (SSCI-2020)*. (Canberra, Australia). (pp. 2806–2813). DOI: 10.1109/SSCI47803.2020.9308505.
32. Pellicer, P. V., Escudero, M. I., Alzueta, S. F., and **Deb, K.** (2020). Gap Finding and Validation in Evolutionary Multi- and Many-Objective Optimization. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2020)* (Cancun, Mexico). ACM Press, (pp. 578–586). DOI: 10.1145/3377930.3389835.
33. Back, P., Suominen, A., Malo, P., Tahvonen, O., Blank, J. and **Deb, K.** (2020). Towards Sustainable Forest Management Strategies with MOEAs. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2020)* (Cancun, Mexico). ACM Press, (pp. 1046–1054). DOI: 10.1145/3377930.3389837.
34. Mittal, S., Saxena, D. K. and **Deb, K.** (2020). Learning-based Multi-objective Optimization Through ANN-Assisted Online Innovization. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2020)* (Cancun, Mexico). ACM Press, (pp. 171–172). DOI: 10.1145/3377929.3389925.

35. Talukdar, A. K. M. and **Deb, K.** (2020). PaletteStarViz: A Visualization Method for Multi-criteria Decision Making from High-dimensional Pareto-optimal Front. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2020)* (Cancun, Mexico). ACM Press, (pp. 175–176). DOI: 10.1145/3377929.3389939.
36. Uribe, L., Lara, A., **Deb, K.** and Schütze, O. (2020). A New Gradient Free Hybrid Multi-objective Evolutionary Algorithm for the Treatment of Constrained Multi-objective Optimization Problems. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2020)* (Cancun, Mexico). ACM Press, (pp. 177–178). DOI: 10.1145/3377929.3390028.
37. Garg, K., Mukherjee, A., Mittal, S., Saxena, D. K., and **Deb, K.** (2020). A Generic and Computationally Efficient Automated Innovization Method for Power-Law Design Rules. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2020)* (Cancun, Mexico). ACM Press, (pp. 161–162). DOI: 10.1145/3377929.3390022
38. Vesikar, Y., Blank, J., **Deb, K.**, Kallio, M., and Maskooki, A. (2020). Dynamic Vessel-to-Vessel Routing Using Level-wise Evolutionary Optimization. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2020)* (Cancun, Mexico). ACM Press, (pp. 295–296). DOI: 10.1145/3377929.3389910
39. Yingchareonthawornchai, S., Roy, P. C., Laekhanukit, B., Torng, E., and **Deb, K.** (2020). Worst-case Conditional Hardness and Fast Algorithms with Random Inputs for Non-dominated Sorting. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2020)* (Cancun, Mexico). ACM Press, (pp. 185–186). DOI: 10.1145/3377929.3390073
40. Lu, Z., Whalen, I., Boddeti, V., Dhebar, Y., **Deb, K.**, Goodman, E. D., and Banzhaf, W. (2019). NSGA-Net: Neural Architecture Search using Multi-Objective Genetic Algorithm. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2019)*, (Prague, Czech Republic). (pp. 419–427).
41. Singh, H. and **Deb, K.** (2019). A Parametric Investigation of PBI and AASF Scalarizations. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2019)*, (Prague, Czech Republic). (pp. 233–234).
42. Marko, O., Pavlovivić, D., Crnojević, V., and **Deb, K.** (2019). Optimisation of Crop Configuration using NSGA-III with Categorical Genetic Operators. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2019)*, (Prague, Czech Republic). (pp. 223–224).
43. Mahdavi, S., Shahryar, R., **Deb, K.** and Rahnamayan, M. (2019). A Knowledge Discovery of Relationships among Dataset Entities Using Optimum Hierarchical Clustering by DE Algorithm. *Proceedings of Congress on Evolutionary Computation (CEC-2019)*, (Wellington, New Zealand). (pp. 2761–2770).
44. Rahnamayan, S., Bidgoli, A. A., Mahdavi, S. and **Deb, K.** (2019). A Novel Pareto-VIKOR Index for Ranking Scientists’ Publication Impacts: A Case Study on Evolutionary Computation Researchers. *Proceedings of Congress on Evolutionary Computation (CEC-2019)*, (Wellington, New Zealand). (pp. 2458–2465).
45. **Deb, K.**, Bandaru, S., and Seada, H. (2019). Generating Uniformly Distributed Points on a Unit Simplex for Evolutionary Many-Objective Optimization. *Proceedings of 10th International Conference on Evolutionary Multi-Criterion Optimization (EMO-2019)*, (East Lansing, USA), (pp. 179–190).

46. Blank, J., **Deb, K.**, and Roy, P. C. (2019). Investigating the Normalization Procedure of NSGA-III. *Proceedings of 10th International Conference on Evolutionary Multi-Criterion Optimization (EMO-2019)*, (East Lansing, USA), (pp. 229–240).
47. Roy, P. C., Hussein, R., Blank, J. and **Deb, K.** (2019). Trust-Region Based Multi-Objective Optimization for Low Budget Scenarios. *Proceedings of 10th International Conference on Evolutionary Multi-Criterion Optimization (EMO-2019)*, (East Lansing, USA), (pp. 373–385).
48. Roy, P. C., Guber, A., Abouli, M., Nejadhashemi, P., **Deb, K.**, and Smucker, A. J. M. (2019). Simulation Optimization of Water Usage and Crop Yield Using Precision Irrigation. *Proceedings of 10th International Conference on Evolutionary Multi-Criterion Optimization (EMO-2019)*, (East Lansing, USA), (pp. 695–706).
49. Hussein, R., and Roy, P. C. and **Deb, K.** (2018). Switching Between Metamodeling Frameworks for Efficient Multi-Objective Optimization. *IEEE Symposium Series on Computational Intelligence (SSCI-2018)*, (pp. 1–8).
50. Talukder, A. K. M. and **Deb, K.** (2018). A Topologically Consistent Visualization of High Dimensional Pareto-front for Multi-Criteria Decision Making. *IEEE Symposium Series on Computational Intelligence (SSCI-2018)*, (pp. 1–8).
51. Dhebar, Y. and **Deb, K.** (2018). Design of an Adaptive Push-Repel Operator for Enhancing Convergence in Genetic Algorithms. *IEEE Symposium Series on Computational Intelligence (SSCI-2018)*, (pp. 1–8).
52. Vesikar, Y. and **Deb, K.** and Blank, J. (2018). Reference Point Based NSGA-III for Preferred Solutions. *IEEE Symposium Series on Computational Intelligence (SSCI-2018)*, (pp. 1–8).
53. Llera, J. R., **Deb, K.**, Runkle, E., Xu, L. and Goodman, E. D. (in press). Evolving and Comparing Greenhouse Control Strategies Using Model-Based Multi-Objective Optimization. *IEEE Symposium Series on Computational Intelligence (SSCI-2018)*, (pp. 1–8).
54. Ibrahim, A., Rahnamayan, S., Martin, M. V. and **Deb, K.** (2018). Enhanced Correlation Matrix Based Visualization for Multi- and Many-objective Optimization. *IEEE Symposium Series on Computational Intelligence (SSCI-2018)*, (pp. 1–8).
55. Talukder, A. K. A., **Deb, K.**, and Blank, J. (2018). Visualization of the boundary solutions of high dimensional pareto front from a decision maker’s perspective. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2018)*, (pp. 201–202).
56. Roy, P. C., Blank, P., Hussein, R., and **Deb, K.** (2018). Trust-region based Algorithms with Low-budget for Multi-objective Optimization. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2018)*, (pp. 195–196).
57. Lu, Z., **Deb, K.**, and Singh, H. (2018). Balancing Survival of Feasible and Infeasible Solutions in Evolutionary Optimization Algorithms. *Proceedings of Congress on Evolutionary Computation (CEC-2018)*, (pp. 1–8).
58. Sinha, A., Bedi, S., and **Deb, K.** (2018). Bilevel Optimization based on Kriging Approximations of Lower Level Optimal Value Function. *Proceedings of Congress on Evolutionary Computation (CEC-2018)*, (pp. 1–8).

59. Gaur, A., Talukder, A. K. M., **Deb, K.**, Tiwari, S., Xu, S. and Jones, D. (2017). Finding Near-Optimum and Diverse Solutions for a Large-Scale Engineering Design Problem. *IEEE Symposium Series on Computational Intelligence (SSCI-2017)*, (Honolulu, USA) (pp. 633–640).
60. **Deb, K.**, Hussein, R., Roy, P. and Toscano, G. (2017). Metamodeling Methodologies for Multi-Objective Optimization: First Results. *Proceedings of the Ninth International Conference on Evolutionary Multi-Criterion Optimization (EMO-2017)*, (LNCS 10173), Springer. (Münster, Germany), (pp. 160–175).
61. Seada, H., Abouhawwash, M., and **Deb, K.** (2017). Towards a Better Balance of Diversity and Convergence in NSGA-III: First Results. *Proceedings of the Ninth International Conference on Evolutionary Multi-Criterion Optimization (EMO-2017)*, (LNCS 10173), Springer. (Münster, Germany), (pp. 545–559).
62. Blank, J., **Deb, K.**, and Mostaghim, S. (2017). Solving the Bi-objective Traveling Thief Problem with Multi-objective Evolutionary Algorithms. *Proceedings of the Ninth International Conference on Evolutionary Multi-Criterion Optimization (EMO-2017)*, (LNCS 10173), Springer. (Münster, Germany), (pp. 46–60).
63. Li, K., **Deb, K.**, Altinoz, T., and Yao, X. (2017). Empirical Investigations of Reference Point Based Methods When Facing a Massively Large Number of Objectives: First Results. *Proceedings of the Ninth International Conference on Evolutionary Multi-Criterion Optimization (EMO-2017)*, (LNCS 10173), Springer. (Münster, Germany), (pp. 390–405).
64. Ibrahim, A., Rahnamayan, S., Martin, M. V., and **Deb, K.** (2017). Fusion of Many-Objective Non-dominated Solutions Using Reference Points. *Proceedings of the Ninth International Conference on Evolutionary Multi-Criterion Optimization (EMO-2017)*, (LNCS 10173), Springer. (Münster, Germany), (pp. 314–328).
65. Talukder, A. K., **Deb, K.**, and Rahnamayan, S. (2017). Injection of Extreme Points in Evolutionary Multiobjective Optimization Algorithms. *Proceedings of the Ninth International Conference on Evolutionary Multi-Criterion Optimization (EMO-2017)*, (LNCS 10173), Springer. (Münster, Germany), (pp. 590–605).
66. Ahrari, A., **Deb, K.**, Mohanty, S. and Hattel, J. (2017). Multi-Objective Optimization of Cellular Scanning Strategy in Selective Laser Melting. *Proceedings of Congress on Evolutionary Computation (CEC-2017) Conference*, (San Sebastian, Spain), (pp. 2730–2737).
67. Sinha, A., Soun, T. and **Deb, K.** (2017). Evolutionary Bilevel Optimization Using KKT Proximity Measure. *Proceedings of Congress on Evolutionary Computation (CEC-2017) Conference*, (San Sebastian, Spain), (pp. 2412–2419).
68. Ibrahim, A., Rahnamayan, S., Martin, M. V. and **Deb, K.** (2017). Fusion-based Hybrid Many-objective Optimization Algorithm. *Proceedings of Congress on Evolutionary Computation (CEC-2017) Conference*, (San Sebastian, Spain), (pp. 2372–2381).
69. Gaur, A. and **Deb, K.** (2017). Effect of Size and Order of Variables in Rules for Multi-Objective Repair-Based Innovization Procedure. *Proceedings of Congress on Evolutionary Computation (CEC-2017) Conference*, (San Sebastian, Spain), (pp. 2177–2184).
70. Myburgh, C. and **Deb, K.** (2017). Use of Derived Heuristics in Improved Performance of Evolutionary Optimization for Real-world Applications. *Proceedings of Congress on Evolutionary Computation (CEC-2017) Conference*, (San Sebastian, Spain), (pp. 830–837).

71. Datta, R., **Deb, K.** and Segev, A. (2017). A Bi-objective Hybrid Constrained Optimization (HyCon) Method Using a Multi-Objective and Penalty Function Approach. *Proceedings of Congress on Evolutionary Computation (CEC-2017) Conference*, (San Sebastian, Spain), (pp. 317–324).
72. Kalra, S., Rahnamayan, S. and **Deb, K.** (2017). Enhancing Clearing-based Niching Method Using Delaunay Triangulation. *Proceedings of Congress on Evolutionary Computation (CEC-2017) Conference*, (San Sebastian, Spain), (pp. 2328–2337).
73. Hui, L. and **Deb, K.** (2017). Challenges for Evolutionary Multi-objective Optimization Algorithms in Solving Variable-length Problems. *Proceedings of Congress on Evolutionary Computation (CEC-2017) Conference*, (San Sebastian, Spain), (pp. 2217–2224).
74. Roy, P., Hussein, R., and **Deb, K.** (2017). Metamodeling of a Multimodal Selection Functions for Evolutionary Multi-Objective Optimization. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2017)*, (Berlin, Germany), (pp. 625–632).
75. Barnhart, B., Lu, Z., Bostian, M., Sinha, A., **Deb, K.**, Kurkalova, L., and Whitekar, G. (2017). Handling Practicalities in Agricultural Policy Optimization for Water Quality Improvements. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2017)*, (Berlin, Germany), (pp. 1065–1072).
76. Lu, Z., **Deb, K.**, Goodman, E. and Wassick, J. (2017). Solving a Real-world Supply-Chain Management Problem Using a Bilevel Evolutionary Approach. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2017)*, (Berlin, Germany), (pp. 1185–1192).
77. Islam, J., Li, X, and **Deb, K.** (2017). Multimodal Truss Structure Design Using Bilevel and Niching Based Evolutionary Algorithms. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2017)*, (Berlin, Germany), (pp. 274–281).
78. Bagheri, S., Konen, W., Allmendinger, R., Branke, J., **Deb, K.**, Fieldsend, J., Quagliarella, D., and Sindhya, K. (2017). Constraint Handling in Efficient Global Optimization. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2017)*, (Berlin, Germany), (pp. 673–680).
79. Dhebar, Y. and **Deb, K.** (2017). A Computationally Fast Multimodal Optimization with Push Enabled Genetic Algorithm. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2017)*, (Berlin, Germany), (pp. 191–192).
80. Couvertier, D. J., **Deb, K.**, and Goodman, E. (2017). Epigenetics Based Control System for Robust and Resilient Operation of Economic Power Dispatch Problem. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2017)*, (Berlin, Germany), (pp. 147–148).
81. Schwaab, J., **Deb, K.**, Goodman, E., Lautenbach, S., van Strien, M. and Grêt-Regamey, A. (2017). Short Versus Long-term Urban Planning Using Multi-objective Optimization to support urban planning. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2017)*, (Berlin, Germany), (pp. 305–306).
82. Abouhawwash, M. and **Deb, K.** (2016). Karush-Kuhn-Tucker Proximity Measure for Multi-Objective Optimization Based on Numerical Gradients. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2016)*, ACM Press, (Denver, CO) (pp. 525–532).

83. Seada, H., Abouhawwash, M., and **Deb, K.** (2016). Towards a Better Diversity of Evolutionary Multi-Criterion Optimization Algorithms using Local Searches. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2016)*, ACM Press, (Denver, CO) (pp. 77–78).
84. Zhichao, L., **Deb, K.** and Sinha, A. (2016). Finding Reliable Solutions in Bilevel Optimization Problems Under Uncertainties. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2016)*, ACM Press, (Denver, CO) (pp. 941–948).
85. Hessein, R. and **Deb, K.** (2016). A Generative Kriging Surrogate Model for Constrained and Unconstrained Multi-objective Optimization. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2016)*, ACM Press, (Denver, CO) (pp. 573–580).
86. **Deb, K.** and Myburgh, C. (2016). Breaking the Billion Variable Barrier in Real-World Optimization Using a Customized Evolutionary Algorithm. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2016)*, ACM Press, (Denver, CO) (pp. 653–660).
87. Ibrahim, A., Rahnamayan, S., Martin, M. G., and **Deb, K.** (2016). EliteNSGA-III: An Improved Evolutionary Many-Objective Optimization Algorithm. *Proceedings of the World Congress on Computational Intelligence (WCCI-2016)*. 25-29 July, 2016, (Vancouver, Canada), (pp. 973–982).
88. Roy, P. and **Deb, K.** (2016). High Dimensional Model Representation for solving Expensive Multi-objective Optimization Problems. *Proceedings of the World Congress on Computational Intelligence (WCCI-2016)*. 25-29 July, 2016, (Vancouver, Canada), (pp. 2490–2497).
89. Ibrahim, A., Rahnamayan, S., Martin, M. G., and **Deb, K.** (2016). 3D-RadVis: Visualization of Pareto Front in Many-Objective Optimization. *Proceedings of the World Congress on Computational Intelligence (WCCI-2016)*. 25-29 July, 2016, (Vancouver, Canada), (pp. 736-745).
90. Liu, H.-L., Chen, L., and Zhang, Q. and **Deb, K.** (2016). An evolutionary many-objective optimisation algorithm with adaptive region decomposition. *Proceedings of the World Congress on Computational Intelligence (WCCI-2016)*. 25-29 July, 2016, Vancouver, Canada, (pp. 4763–4769).
91. Sinha, A., Malo, P. and **Deb, K.** (2016). Solving Optimistic Bilevel Programs by Iteratively Approximating Lower Level Optimal Value Function. *Proceedings of the World Congress on Computational Intelligence (WCCI-2016)*. 25-29 July, 2016, Vancouver, Canada. (pp. 1877–1884).
92. Helbig, M., **Deb, K.** and Engelbrecht, A. (2016). Key Challenges and Future Directions of Dynamic Multi-objective Optimisation. *Proceedings of the World Congress on Computational Intelligence (WCCI-2016)*. 25-29 July, 2016, Vancouver, Canada. (pp. 1256–1261).
93. Siegmund, F., Ng, A., and **Deb, K.** (2016). A Ranking and Selection Strategy for Preference-based Evolutionary Multi-objective Optimization of Variable-Noise Problems. *Proceedings of the World Congress on Computational Intelligence (WCCI-2016)*. 25-29 July, 2016, Vancouver, Canada, (pp. 3035–3044).
94. Suryan, V., Sinha, A., Malo, P. and **Deb, K.** (2016). Handling Inverse Optimal Control Problems using Evolutionary Bilevel Optimization. *Proceedings of the World Congress on Computational Intelligence (WCCI-2016)*. 25-29 July, 2016, Vancouver, Canada, (pp. 1893–1900).

95. Toscano, G. and **Deb, K.** (2016). Study of the Approximation of the Fitness Landscape and the Ranking Process of Scalarizing Functions for Many-objective Problems. *Proceedings of the World Congress on Computational Intelligence (WCCI-2016)*. 25-29 July, 2016, Vancouver, Canada, (pp. 4358–4365).
96. Mahdavi, S., Shahryar, R. and **Deb K.** (2016). Center-Based Initialization of Cooperative Co-evolutionary Algorithm for Large-scale Optimization. *Proceedings of the World Congress on Computational Intelligence (WCCI-2016)*. 25-29 July, 2016, Vancouver, Canada, (pp. 4358–4365).
97. **Deb, K.**, Siegmund, F., and Ng, A. H. C. (2015). R-HV: A Metric for Computing Hypervolume for Reference Point Based EMOs. *Proceedings of Swarm, Evolutionary and Memetic Computing Conference (SEMCCO-2014)*. Springer, (pp. 98–110).
98. Altinoz, T. and **Deb, K.** (2015). Late Parallelization and Feedback Approaches for Distributed Computation of Evolutionary Multiobjective Optimization Algorithm. *Proceedings of the Second International Conference on Soft Computing and Machine Intelligence (ICSMI-2015)*, (Hong Kong), IEEE Press, (pp. 40-44)
99. **Deb, K.**, Abouhawwash, M., and Dutta, J. (2015). A KKT Proximity Measure for Evolutionary Multi-Objective and Many-Objective Optimization. *Proceedings of Eighth Conference on Evolutionary Multi-Criterion Optimization (EMO-2015)*. Springer. (pp. 18–33).
100. Tutum, C. C. and **Deb, K.** (2015). A Multimodal Approach for Evolutionary Multi-objective Optimization (MEMO): Proof-of-Principle Results. *Proceedings of Eighth Conference on Evolutionary Multi-Criterion Optimization (EMO-2015)*. Springer, (pp. 3–18).
101. Byers, C., Chang, B., and **Deb, K.** (2015). Unwanted Feature Interactions Between the Problem and Search Operators in Evolutionary Multi-objective Optimization. *Proceedings of Eighth Conference on Evolutionary Multi-Criterion Optimization (EMO-2015)*. Springer. (pp. 19–33).
102. Seada, H. and **Deb, K.** (2015). U-NSGA-III: A Unified Evolutionary Optimization Procedure for Single, Multiple, and Many Objectives – Proof-of-Principle Results. *Proceedings of Eighth Conference on Evolutionary Multi-Criterion Optimization (EMO-2015)*. Springer. (pp. 34–49).
103. Siegmund, F., Ng, A., and **Deb, K.** (2015). Hybrid Dynamic Resampling for Guided Evolutionary Multi-Objective Optimization. *Proceedings of Eighth Conference on Evolutionary Multi-Criterion Optimization (EMO-2015)*. Springer. (pp. 366–380).
104. Bandaru, S. and **Deb, K.** (2015). Temporal Innovization: Evolution of Design Principles in Multi-objective Optimization. *Proceedings of Eighth Conference on Evolutionary Multi-Criterion Optimization (EMO-2015)*. Springer. (pp. 79–93).
105. Sinha, A. and **Deb, K.** (2015). Towards Understanding Bilevel Multi-objective Optimization with Deterministic Lower Level Decisions. *Proceedings of Eighth Conference on Evolutionary Multi-Criterion Optimization (EMO-2015)*. Springer. (pp. 426–444).
106. Gaur, A. and Deb, K. (2015). Towards An Automated Innovization Method for Handling Discrete Search Spaces. *Proceedings of the 2015 Congress on Evolutionary Computation (CEC-2015)*. Piscatway, NJ: IEEE press, (pp. 2899–2906).

107. Seada, H. and **Deb, K.** (2015). Effect of Selection Operator on NSGA-III in Single, Multi, and Many-Objective Optimization. *Proceedings of the 2015 Congress on Evolutionary Computation (CEC-2015)*. Piscatway, NJ: IEEE press, (pp. 2915–2922).
108. Tutum, C. C., Guber, A., **Deb, K.**, Smucker, A., Nejadhashemi, A. P., and Kiraz, B. (2015). An Integrated Approach Involving EMO and HYDRUS-2D Software for SWRT-based Precision Irrigation. *Proceedings of the 2015 Congress on Evolutionary Computation (CEC-2015)*. Piscatway, NJ: IEEE press, (pp. 885–892).
109. **Deb, K.**, Lu, Z., McKesson, C., Trumbach, C. C., DeCan, L. (2015). Optimal Ship Design and Valuable Knowledge Discovery Under Uncertain Conditions. *Proceedings of the 2015 Congress on Evolutionary Computation (CEC-2015)*. Piscatway, NJ: IEEE press, (pp. 1815–1822)
110. **Deb, K.**, Zhu, L., and Kulkarni, S. (2015). Multi-Scenario, Multi-Objective Optimization Using Evolutionary Algorithms: Initial Results. *Proceedings of the 2015 Congress on Evolutionary Computation (CEC-2015)*. Piscatway, NJ: IEEE press. 2601–2608.
111. Altinoz, T. and **Deb, K.** (2015). Reference Point based Distributed Computing for Multiobjective Optimization. *Proceedings of the 2015 Congress on Evolutionary Computation (CEC-2015)*. Piscatway, NJ: IEEE press, (pp. 1877–1884)
112. Porokka, A., Sinha, A., Malo P. and **Deb, K.** (2015). Unconstrained Robust Optimization using a Descent-based Crossover Operator. *Proceedings of the 2015 Congress on Evolutionary Computation (CEC-2015)*. Piscatway, NJ: IEEE press, (pp. 85–92).
113. Sinha, A., Malo, P. and **Deb, K.** (2015). Transportation Policy Formulation as a Multiobjective Bilevel Optimization Problem. *Proceedings of the 2015 Congress on Evolutionary Computation (CEC-2015)*. Piscatway, NJ: IEEE press, (pp. 1651–1658)
114. Lu, Z., **Deb, K.**, and Sinha, A. (2015). Handling Decision Variable Uncertainty in Bilevel Optimization Problems. *Proceedings of the 2015 Congress on Evolutionary Computation (CEC-2015)*. Piscatway, NJ: IEEE press, (pp. 1683-1690).
115. Ali. A., Lei, H., Sharif. M. A., **Deb, K.**, Tan, X. (2015). Design Optimization of Artificial Lateral Line System under Uncertain Conditions. *Proceedings of the 2015 Congress on Evolutionary Computation (CEC-2015)*. Piscatway, NJ: IEEE press, (pp. 1807–1814).
116. Li, K., **Deb, K.** and Zhang, Q. (2015). Evolutionary Multiobjective Optimization With Hybrid Selection Principles. *Proceedings of the 2015 Congress on Evolutionary Computation (CEC-2015)*. Piscatway, NJ: IEEE press, (pp. 900–907).
117. Mohammadi, A., Omidvar, M. N., Li, X., and **Deb, K.** (2015). Sensitivity Analysis of Penalty-based Boundary Intersection on Aggregation-based EMO Algorithms. *Proceedings of the 2015 Congress on Evolutionary Computation (CEC-2015)*. Piscatway, NJ: IEEE press, (pp. 2891-2898).
118. Srikrishna, V., Ghosh, R., Ravi, V. and **Deb, K.** (2015). Elitist Quantum-Inspired Differential Evolution based Wrapper for Feature Subset Selection. *Proceedings of Nineth Multi-Disciplinary International Workshop on Artificial Intelligence (MIWAI-2015)*. Lecture Notes in Artificial Intelligence (LNAI), Springer. (pp. 113–124).
119. Ouni, A., Kessentini, M. Sahraouic, H., Cinnéide, M. O., **Deb, K.**, and Inou, K. (2015). A Multi-Objective Refactoring Approach to Introduce Design Patterns and Fix Anti-Patterns.

- Proceedings of North American Search Based Software Engineering Symposium (NASBASE-2015)*, Elsevier. (pp. 1–15).
120. Myburgh, C. A., **Deb, K.**, and Craig, S. (2014). Applying Modern Heuristics to Maximising Net Present Value through Cut-off Grade Optimisation. *Proceedings of Orebody Modelling and SMP 2014*, Australasian Institute of Mining and Metallurgy (AusIMM). (pp. 155–164).
 121. Nag, A. K., Dasgupta, D., and **Deb, K.** (2014). An Adaptive Approach for Active Multi-Factor Authentication. *Proceedings of 9th Annual Symposium on Information Assurance (ASIA)*. Albany, NY. (pp. 39–47).
 122. Hernandez, A., Schuetze, O. and **Deb, K.** (2014). A Memetic Variant of R-NSGA-II for Reference Point Problems. *Proceedings of EVOLVE-2014 Conference: A bridge between Probability, Set Oriented Numerics and Evolutionary Computation V*. Advances in Intelligent Systems and Computing (AISC), Vol. 288, Springer. (pp. 247–260).
 123. Mkaouer, W., Kessentini, M., Bechikh, S., Cinnéide, M. O., **Deb, K.** (2014). Software Refactoring Under Uncertainty: A Robust Multi-Objective Approach. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2014)*, Heidelberg: Springer. (pp. 187–188).
 124. Mkaouer, W., Kessentini, M., Bechikh, S., **Deb, K.**, and Cinnéide, M. O. (2014). High Dimensional Search-based Software Engineering: Finding Tradeoffs Among 15 Objectives for Automating Software Refactoring Using NSGA-III. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2014)*, Heidelberg: Springer. (pp. 1263–1270).
 125. Sinha, A., Malo, P., Xu, P., and **Deb, K.** (2014). A Bilevel Optimization Approach to Automated Parameter Tuning. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2014)*, Heidelberg: Springer. (pp. 847–854).
 126. Sinha, A., Malo, P. and **Deb, K.** (2014). An Improved Bilevel Evolutionary Algorithm based on Quadratic Approximations. *Proceedings of World Congress on Computational Intelligence (WCCI-2014)*, Piscataway, NJ: IEEE Press. (pp. 1870–1877).
 127. Purshouse, R. C. and **Deb, K.**, Mansor, M. M., Mostaghim, S. and Wang, R. (2014). A Review of Hybrid Evolutionary Multiple Criteria Decision Making Methods. *Proceedings of World Congress on Computational Intelligence (WCCI-2014)*, Piscataway, NJ: IEEE Press. (pp. 1147–1154).
 128. Bandaru, S., Ng, A., and **Deb, K.** (2014). On the Performance of Classification Algorithms for Learning Pareto-Dominance Relations. *Proceedings of World Congress on Computational Intelligence (WCCI-2014)*, Piscataway, NJ: IEEE Press. (pp. 1139–1146).
 129. Zhu, L., **Deb, K.** and Kulkarni, S. (2014). Multi-Scenario Optimization Using Multi-Criterion Methods: A Case Study on Byzantine Agreement Problem. *Proceedings of World Congress on Computational Intelligence (WCCI-2014)*, Piscataway, NJ: IEEE Press. (pp. 2601–2608)
 130. Dhebar, Y., **Deb, K.** and Bandaru, S. (2014). Non-Uniform Mapping in Real-Coded Genetic Algorithms. *Proceedings of World Congress on Computational Intelligence (WCCI-2014)*, Piscataway, NJ: IEEE Press. (pp. 2237–2244).
 131. Enaya, Y. and **Deb, K.** (2014). Network Path Optimization Under Dynamic Conditions. *Proceedings of World Congress on Computational Intelligence (WCCI-2014)*, Piscataway, NJ: IEEE Press. (pp. 2977–2984).

132. Mohammadi, A., Omidvar, M. N., Li, X. and **Deb, K.** (2014). Integrating User Preferences and Decomposition methods for Many-objective Optimization. *Proceedings of World Congress on Computational Intelligence (WCCI-2014)*, Piscataway, NJ: IEEE Press. (pp. 421–428).
133. **Deb, K.**, Srivastava, S. and Chawla, A. (2013). Metamodeling and Optimization for Varying Dimensional Search Space. *Proceedings of Swarm, Evolutionary and Memetic Computing Conference (SEMCCO-2013)*, LNCS-8297, (Chennai, India). Heidelberg: Springer, (pp. 13–23).
134. Bandaru, S. and **Deb, K.** (2013). Parameterless-Niching-Assisted Bi-objective Approach to Multimodal Optimization. *Proceedings of Congress on Evolutionary Computation (CEC-13)*. Piscatway, NJ: IEEE Press, (pp. 95–102).
135. Sinha, A., Malo, P., Frantsev, A. and **Deb, K.** (2013). Multi-objective Stackelberg Game Between a Regulating Authority and a Mining Company: A Case Study in Environmental Economics. *Proceedings of Congress on Evolutionary Computation (CEC-13)*. Piscatway, NJ: IEEE Press, (pp. 4778–485).
136. Datta, R., **Deb, K.**, Costa, F. and Gaspar Cunha, A. (2013). An Evolutionary Algorithm based Pattern Search Approach for Constrained Optimization. *Proceedings of Congress on Evolutionary Computation (CEC-13)*. Piscatway, NJ: IEEE Press, (pp. 1355–1362).
137. Siegmund, F., Ng A. H. C. and **Deb, K.** (2013). Comparative Study of Dynamic Resampling Strategies for Guided Evolutionary Multi-Objective Optimization. *Proceedings of Congress on Evolutionary Computation (CEC-13)*. Piscatway, NJ: IEEE Press, (pp. 1826–1835).
138. Padhye, N., Mittal, P. and **Deb, K.** (2013). Differential Evolution: Performances and Analyses. *Proceedings of Congress on Evolutionary Computation (CEC-13)*. Piscatway, NJ: IEEE Press, (pp. 1960–1967).
139. Datta, R. and **Deb, K.** (2013). Penalty Based Constraint handling Using a Hybrid Bi-Objective and Penalty Function Approach. *Proceedings of Congress on Evolutionary Computation (CEC-13)*. Piscatway, NJ: IEEE Press, (pp. 2720–2727).
140. Recio, G. and **Deb, K.** (2013). Solving Clustering Problems Using Bi-Objective Evolutionary Optimisation and Knee Finding Algorithms. *Proceedings of Congress on Evolutionary Computation (CEC-13)*. Piscatway, NJ: IEEE Press, (pp. 2848–2855).
141. Bandaru, S., and **Deb, K.** (2013). A Dimensionally-Aware Genetic Programming Architecture for Automated Innovization. *Proceedings of the Seventh International Conference on Evolutionary Multi-Criterion Optimization (EMO-13)*, LNCS 7811, (Sheffield, UK). Heidelberg: Springer, (pp. 513–527).
142. Jain, H., and **Deb, K.** (2013). An Improved Adaptive Approach for Elitist Nondominated Sorting Genetic algorithm for Many-Objective Optimization. *Proceedings of the Seventh International Conference on Evolutionary Multi-Criterion Optimization (EMO-13)*, LNCS 7811, (Sheffield, UK). Heidelberg: Springer, (pp. 307–321).
143. Ng, A., Dudas, C., Boström, H. and **Deb, K.** (2012). Interleaving Innovization with Evolutionary Multi-Objective Optimization in Production System Simulation for Faster Convergence. *Proceedings of Learning and Intelligent Optimization Conference (LION 7)*. Heidelberg: Springer. (*Best Paper Award*), (pp. 1–18).

144. **Deb, K.**, Dhebar, Y. and Pavan, N. V. R. (2012). Optimization for Variable-Size Problems Using Genetic Algorithms. *Proceedings of the Seventh International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2012)*. (Gwalior, India), Heidelberg: Springer, (pp. 133-144).
145. Padhye, N., **Deb, K.**, and Mittal, P. (2012). Boundary Handling Approaches in Particle Swarm Optimization. *Proceedings of the Seventh International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2012)*. (Gwalior, India), Heidelberg: Springer. (pp. 287–298).
146. Ahmed, F., Bhattacharya, B., and **Deb, K.** (2012). Constructive Solid Geometry based Topology Optimization using Evolutionary Algorithms. *Proceedings of the Seventh International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2012)*. (Gwalior, India), Heidelberg: Springer, (pp. 227-238).
147. Gaur, A., Bandaru, S., Khare, V., Chougule, R. and **Deb, K.** (2012). Identification and Impact Assessment of High Priority Field Failures in Passenger Vehicles using Evolutionary Optimization. *Proceedings of the Seventh International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2012)*. (Gwalior, India), Heidelberg: Springer, (pp. 111-122).
148. Ryerkerk, M., Averill, R., **Deb, K.**, and Goodman, E. (2012). Optimization for Variable-Size Problems Using Genetic Algorithms. *Proceedings of the 14th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference*. (Indianapolis, USA). AIAA 2012-5569, Reston, VA: AIAA.
149. Deb, D. and **Deb, K.** (2012). Investigation of Mutation Schemes in Real-Parameter Genetic Algorithms. *Proceedings of Swarm, Evolutionary and Memetic Computing Conference (SEMCCO-2012)*, (Bhubaneswar, India). LNCS 7677. Heidelberg: Springer-Verlag, (pp. 1–8).
150. Achariya, A. and **Deb, K.** (2012). Associated and Assorted Recombination in SBX Operator for Problems with Linkages. *Proceedings of Swarm, Evolutionary and Memetic Computing Conference (SEMCCO-2012)*, LNCS 7677. (Bhubaneswar, India). Heidelberg: Springer, (pp 484–491).
151. Siegmund, F., Bernedixen, J., Pehrsson, L., Ng, A. H. C., and **Deb, K.** (2012). Reference point based evolutionary multi-objective optimization for industrial systems simulation. In C. Laroque, J. Himmelpach, R. Pasupathy, O. Rose, and A.M. Uhrmacher (Eds.) *Proceedings of the 2012 Winter Simulation Conference*. Article Number 130. ACM SIGSIM.
152. **Deb, K.**, Bandaru, S., and Tutum, C. C. (2012). Temporal Evolution of Design Principles in Engineering Systems: Analogies with Human Evolution. *Proceedings of the Twelfth Parallel Problem Solving from Nature Conference (PPSN-2012)*, Lecture Notes in Computer Science (LNCS) 7492, (pp. 1–10).
153. **Deb, K.** (2012). Advances in Evolutionary Multi-Objective Optimization. *Proceedings of the Symposium on Search Based Software Engineering (SSBSE-2012)*, Lecture Notes in Computer Science (LNCS) 7515. (pp. 1–26).
154. Ng. A. H. C., Dudas, C., Pehrsson, L. and **Deb, K.** (2012). Knowledge discovery in production simulation by interleaving multi-objective optimization and data mining. *Proceedings of the Fifth Swedish Production Symposium (SPS12)*, Swedish Production Academy. (pp. 461–472). (Received Best Paper Award).

155. Ryerkerk, M., Averill, R., **Deb, K.**, and Goodman, E. (2012). Determining Optimal Number of Components using Variable-Length Genomes. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2012)*. ACM Press. (pp. 1471–1472).
156. Datta, R. and **Deb, K.** (2012). An Adaptive Normalization based Constrained Handling Methodology with Hybrid Bi-Objective and Penalty Function Approach. *Proceedings of Congress on Evolutionary Computation (CEC-2012)*, (pp. 1-8).
157. Datta, R., Bittermann, M. S., **Deb, K.**, and Ciftcioglu, O. (2012). Probabilistic Constraint Handling in the Framework of Joint Evolutionary-Classical Optimization with Engineering Applications. *Proceedings of Congress on Evolutionary Computation (CEC-2012)*, (pp. 1–8).
158. Sinha, A., Pandey, A. and **Deb, K.** (2012). Solving High Objective Problems in Fixed Interactions with the Decision Maker. *Proceedings of Congress on Evolutionary Computation (CEC-2012)*, (pp. 1–8).
159. Sinha, A., Malo, P. and **Deb, K.** (2012). Unconstrained Scalable Test Problems for Single-Objective Bilevel Optimization. *Proceedings of Congress on Evolutionary Computation (CEC-2012)*, (pp. 1–8).
160. Chikumbo, O., Goodman, E. and **Deb, K.** (2012). Approximating a multi-dimensional Pareto front for a land use management problem: A modified MOEA with an epigenetic silencing metaphor. *Proceedings of Congress on Evolutionary Computation (CEC-2012)*, (pp. 1–8).
161. Siegmund, F., Ng, A. H. C. and **Deb, K.** (2012). Finding a preferred diverse set of Pareto-optimal solutions for a limited number of function calls. *Proceedings of Congress on Evolutionary Computation (CEC-2012)*, (pp. 1–8).
162. **Deb, K.** and Jain, H. (2012). Handling Many-Objective Problems Using an Improved NSGA-II Procedure. *Proceedings of Congress on Evolutionary Computation (CEC-2012)*, (Brisbane, Australia). (pp. 1–8). DOI: 10.1109/CEC.2012.6256519
163. Ahmed, F., Jindal, A., and **Deb, K.** (2011). Cricket Team Selection Using Evolutionary Multi-Objective Optimization. *Proceedings of the International Conference on Swarm Intelligence and Evolutionary Computing (SEMCCO-2011)*, (LNCS 7077), Heidelberg: Springer. (pp. 71–78).
164. Ahmed, F. and **Deb, K.** (2011). Multi-Objective Path Planning using Spline Representation. *Proceedings of the IEEE International Conference on Robotics and Biomimetics (IEEE-ROBIO 2011)*, Piscatway, NJ: IEEE Press. (pp. 1047–1052).
165. Jain, H. and **Deb, K.** (2011). Parent to Mean-Centric Self-Adaptation in SBX Operator for Real-Parameter Optimization. *Proceedings of the International Conference on Swarm Intelligence and Evolutionary Computing (SEMCCO-2011)*, (LNCS 7077), Heidelberg: Springer. (pp. 299–306).
166. King, R. T. F., Rughooputh, H. C. S. and **Deb, K.** (2011). Solving the Multiobjective Environmental/Economic Dispatch Problem with Prohibited Operating Zones using NSGA-II, *Proceedings of 2011 IEEE Pacific Rim Conference on Communications, Computers and Signal Processing (PacRim 2011)*. Piscatway, NJ: IEEE Press. (pp. 298-303).

167. Bandaru, S., **Deb, K.**, Khare, V. and Chougule, R. (2011). Quantitative Modeling of Customer Perception from Service Data using Evolutionary Optimization. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2011)*. ACM Press. (pp. 1763–1770).
168. Datta, R. and **Deb, K.** (2011). Multi-Objective Design and Analysis of Robot Gripper Configurations Using an Evolutionary-Classical Approach. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2011)*. ACM Press. (pp. 1843–1850).
169. Srivastava, R. and **Deb, K.** (2011). An EA-based Approach to Design Optimization using Evidence Theory. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2011)*. ACM Press. (pp. 1139–1146).
170. Tulshyan, R., **Deb, K.** and Bandaru, S. (2011). KKT Proximity Measure for Testing Convergence in Smooth Multi-objective Optimization. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2011)*. ACM Press. (pp. 93-94).
171. **Deb, K.**, Steuer, R., Tiwari, R. and Tiwari, R. (2011). Bi-objective Portfolio Optimization Using a Customized Hybrid NSGA-II Procedure. *Proceedings of Sixth International Conference on Evolutionary Multi-Criterion Optimization (EMO-2011)*. LNCS 6576, Heidelberg, Springer, (pp. 358–373).
172. Datta, R. and **Deb, K.** (2011). A Bi-Objective Based Hybrid Evolutionary-Classical Algorithm for Handling Equality Constraints. *Proceedings of Sixth International Conference on Evolutionary Multi-Criterion Optimization (EMO-2011)*. Springer. (pp. 313–327).
173. Bandaru, S. and **Deb, K.** (2011). Automated Innovization for Simultaneous Discovery of Multiple Rules in Bi-objective Problems. *Proceedings of Sixth International Conference on Evolutionary Multi-Criterion Optimization (EMO-2011)*. Springer. (pp. 1–15).
174. Bandaru, S., Tutum, C. C. and **Deb, K.**, and Hattel, J. (2011). Higher-level innovization: A case study from friction stir welding process optimization. *Proceedings of Congress on Evolutionary Computation (CEC-2011)*, IEEE Press. (pp.2782–2789).
175. Bandaru, S., Tulshyan, R. and **Deb, K.** (2011). Modified SBX and Adaptive Mutation for Real World Single Objective Optimization. *Proceedings of Congress on Evolutionary Computation (CEC-2011)*, IEEE Press. (pp. 1335–1342).
176. **Deb, K.** (2010). Evolutionary Multi-Objective Optimization: Principles, Procedures, and Practices. *International Conference on Modelling, Optimization and Computing (ICMOC-2010)*. Durgapur, India: American Institute of Physics (AIP), Volume 1298, (Durgapur, India), (pp. 12–17).
177. Bandaru, S. and **Deb, K.** (2010). Automated Discovery of Vital Knowledge from Pareto-optimal Solutions: First Results from Engineering Design. *Proceedings of the IEEE World Congress on Computational Intelligence (WCCI-2010)*, Barcelona, Spain: IEEE Press. (pp. 1224-1231).
178. **Deb, K.** and Datta, R. (2010). A Fast and Accurate Solution of Constrained Optimization Problems Using a Hybrid Bi-Objective and Penalty Function Approach. *Proceedings of the IEEE World Congress on Computational Intelligence (WCCI-2010)*, Barcelona, Spain: IEEE Press, (pp. 165–172).

179. Arora, R., Tulshyan, R. and **Deb, K.** (2010). Parallelization of Binary and Real-Coded Genetic Algorithms on CUDA. *Proceedings of the IEEE World Congress on Computational Intelligence (WCCI-2010)*, Barcelona, Spain: IEEE Press, (pp. 3680–3687).
180. Saha, A., Datta, R. and **Deb, K.** (2010). An Adaptive Mutation based Constrained Optimization Methodology Using a Real-Coded Genetic Algorithm. *Proceedings of the IEEE World Congress on Computational Intelligence (WCCI-2010)*, Barcelona, Spain: IEEE Press, (pp. 2851-2858).
181. Sinha, A., **Deb, K.**, Korhonen, P. and Wallenius, J. (2010). Progressively Interactive Evolutionary Multi-Objective Optimization Method Using Generalized Polynomial Value Functions. *Proceedings of the IEEE World Congress on Computational Intelligence (WCCI-2010)*, Barcelona, Spain: IEEE Press. (pp. 3860–3867).
182. Nandi, A. K., Datta, S., **Deb, K.**, and Orkus, J. (2010). Studies on effective thermal conductivity of particle reinforced polymertic flexible mould material composites: A genetic fuzzy based approach. *Proceedings of Third International Conference on Recent Advances in Composite Materials (ICRACM-3)*, Limoges, France. (pp. 1–6)
183. Sinha, A., Korhonen, P., Wallenius, J. and **Deb, K.** (2010). An interactive evolutionary multi-objective optimization method based on polyhedral cones. *Proceedings of the 4th international conference on Learning and intelligent optimization (LION'10)*, (LNCS 6073), Heidelberg: Springer. (pp. 318–332).
184. Srivatava, R. and **Deb, K.** (2010). Bayesian Reliability Analysis under Incomplete Information Using Evolutionary Algorithms. *Proceedings of the Eighth International Conference on Simulated Evolution and Learning (SEAL-2010)*, (Kanpur, India), Berlin: Springer-Verlag, (pp. 435–444).
185. Saha, A. and **Deb, K.** (2010). A Bi-criterion Approach to Multimodal Optimization: Self-adaptive Approach. *Proceedings of the Eighth International Conference on Simulated Evolution and Learning (SEAL-2010)*, (Kanpur, India), Berlin: Springer-Verlag, (pp. 95–104).
186. Tutum, C, C., **Deb, K.**, and Hattel, J. (2010). Hybrid Search for Faster Production and Safer Process Conditions in Friction Stir Welding. *Proceedings of the Eighth International Conference on Simulated Evolution and Learning (SEAL-2010)*, (Kanpur, India), Berlin: Springer-Verlag, (pp. 603–612).
187. Padhye, N., Bhardawaj, P., and **Deb, K.** (2010). Improving Differential Evolution by Altering Steps in EC. *Proceedings of the Eighth International Conference on Simulated Evolution and Learning (SEAL-2010)*, (Kanpur, India), Berlin: Springer-Verlag, (pp. 146–155).
188. **Deb, K.** and Gupta, S. (2010). Towards a link between knee solutions and preferred solution methodologies. *Proceedings of the First International Conference on Swarm, Evolutionary and Memetic Computing (SEMCCO 2010)*. (Chennai, India), Berlin: Springer-Verlag, (pp. 330–337).
189. Srivastava, S. and **Deb, K.** (2010). A genetic algorithm based augmented Lagrangian method for computationally fast constraint optimization. *Proceedings of the First International Conference on Swarm, Evolutionary and Memetic Computing (SEMCCO 2010)*. (Chennai, India), Berlin: Springer-Verlag, (pp. 27–189).

190. Nain, P. K. S., Giri, J. M., Sharma, S. and **Deb, K.** (2010). Multi-objective performance optimization of thermo-electric coolers using dimensional structural parameters. *Proceedings of the First International Conference on Swarm, Evolutionary and Memetic Computing (SEMCCO 2010)*. (Chennai, India), Berlin: Springer-Verlag, (pp. 607–614).
191. Li, X. and **Deb, K.** (2010). Comparing lbest PSO Niching algorithms Using Different Position Update Rules. *Proceedings of the IEEE World Congress on Computational Intelligence (WCCI-2010)*, (Barcelona, Spain), IEEE Press, (pp. 1564–1571).
192. **Deb, K.** and Padhye, N. (2010). Development of Efficient Particle Swarm Optimizers by Using Concepts from Evolutionary Algorithms. *Proceedings of Genetic and Evolutionary Algorithms Conference (GECCO-2010)*. (Portland, USA), ACM Press, (pp. 55-62).
193. **Deb, K.** and Saha, A. (2010). Finding Multiple Solutions for Multimodal Optimization Problems Using a Multi-Objective Evolutionary Approach. *Proceedings of Genetic and Evolutionary Algorithms Conference (GECCO-2010)*. (Portland, USA), ACM Press, (pp. 447–454).
194. Myburgh, C. and Deb, K. (2010). Evolutionary Algorithms in Large-Scale Open Pit Mine Scheduling. *Proceedings of Genetic and Evolutionary Algorithms Conference (GECCO-2010)*. (Portland, USA), ACM Press, (pp. 1155-1162).
195. Tulshyan, R., Arora, R., **Deb, K.** and Dutta, J. (2010). Investigating EA Solutions for Approximate KKT Conditions for Smooth Problems. *Proceedings of Genetic and Evolutionary Algorithms Conference (GECCO-2010)*. (Portland, USA), ACM Press, (pp. 689–696).
196. Padhye, N. and **Deb, K.** (2010). Evolutionary Multi-objective Optimization and Decision Making for Selective Laser Sintering. *Proceedings of Genetic and Evolutionary Algorithms Conference (GECCO-2010)*. (Portland, USA), ACM Press, (pp. 1259–1266).
197. **Deb, K.** and Miettinen, K. (2009). A Review of Nadir Point Estimation Procedures Using Evolutionary Approaches: A Tale of Dimensionality Reduction. *Proceedings of the Multiple Criterion Decision Making (MCDM-2008) Conference*. Lecture Notes in Economics and Mathematical Systems, 634. Heidelberg, Germany: Springer, (pp. 339–354).
198. Sinha, A. and Deb, K. (2009). Towards understanding evolutionary bilevel multi-objective optimization algorithm, *IFAC Workshop on Control Applications of Optimizatoin (IFAC-2009)*, 7(1), Elsevier. (pp. 1–6).
199. Datta, R. and **Deb, K.** (2009). A classical-cum-evolutionary multi-objective optimization for optimal machining parameters. *Proceedings of International Conference on Nature and Biologically Inspired Computing (NaBIC)*, (pp. 607–612).
200. Kodali, S. P., **Deb, K.**, Bandaru, S., Munshi, P., and Kishore, N. N. (2009). Simulation studies on a genetic algorithm based tomographic reconstruction using time-of-flight data from ultrasound transmission tomography. *Proceedings of the International Conference on Adaptive and Natural Computing Algorithms (ICANNGA-09)* (LNCS 5495), (pp. 253–262).
201. Bader, J., **Deb, K.**, and Zitzler, E. (2009). Faster hypervolume-based search using Monte Carlo sampling. *Proceedings of the Multiple Criterion Decision Making (MCDM-2008) Conference*. Lecture Notes in Economics and Mathematical Systems, 634. Heidelberg, Germany: Springer, (pp. 313–326).

202. Ng, A., **Deb, K.**, and Dudas, C. (2009). Simulation-based Innovization for production systems improvement: An industrial case study. *Proceedings of the Third International Conference on Swedish Production Symposium (SPS)*, Swedish Production Academy, (pp. 278–286).
203. Srivastava, K., Srivastava, S., Pathak, B. K. and **Deb, K.** (2009). Discrete time-cost tradeoff with a novel hybrid meta heuristic. *Proceedings of the Multiple Criterion Decision Making (MCDM-2008) Conference*. Lecture Notes in Economics and Mathematical Systems, 634. Heidelberg, Germany: Springer, (pp. 177–188).
204. Sinha, A., Korhonen, P., Wallenius, J. and Deb, K. (2009). An Interactive Evolutionary Multi-Objective Optimization Method Based on Polyhedral Cones, *Proceedings of Learning and Intelligent Optimization Conference (LION-2010)*, Venice, Italy. (pp. 318–332).
205. **Deb, K.** and Sinha, A. (2009). Constructing test problems for bilevel evolutionary multi-objective optimization. *Proceedings of the Congress on Evolutionary Computation (CEC-2009)*. Piscatway, NJ: IEEE Press. (pp. 1153–1160).
206. Sindhya, K., **Deb, K.**, and Miettinen, K. (2009). Search based evolutionary multi-objective optimization algorithm for constrained and unconstrained problems. *Proceedings of the Congress on Evolutionary Computation (CEC-2009)*. Piscatway, NJ: IEEE Press. (pp. 2919–2626).
207. Kodali, S., **Deb, K.**, Munshi, P., and Kishore, N. N. (2009). Comparing GA with MART to tomographic reconstruction of ultrasound images With and without noisy input data. *Proceedings of the Congress on Evolutionary Computation (CEC-2009)*. Piscatway, NJ: IEEE Press. (pp. 2963–2970).
208. Saxena, D., **Deb, K.**, and Ray, T. (2009). Constrained many-objective optimization: A way forward. *Proceedings of the Congress on Evolutionary Computation (CEC-2009)*. Piscatway, NJ: IEEE Press. (pp. 545–552).
209. Cabello, J. M., Cejudo, J. M., Luque, M., Ruiz, F., Deb, K. Tewari, R. (2009). Optimization of the sizing of a solar thermal electricity plant: Mathematical programming versus genetic algorithms, *Proceedings of the Congress on Evolutionary Computation (CEC-2009)*. Piscatway, NJ: IEEE Press. (pp. 1193–1200).
210. Tiwari, S., Fadel, G., Koch, P. and **Deb, K.** (2009). Performance assessment of the hybrid archive-based micro genetic algorithm (AMGA) on the CEC09 test problems. *Proceedings of the Congress on Evolutionary Computation (CEC-2009)*. Piscatway, NJ: IEEE Press. (pp. 1935–1942).
211. **Deb, K.** and Sinha, A. (2009). Solving multi-objective bilevel optimization problems using evolutionary algorithms. *Proceedings of Fifth International Conference on Multi-Criterion Optimization (EMO-2009)*. Heidelberg: Springer. (pp. 110–124).
212. **Deb, K.**, Miettinen, K., and Sharma, D. (2009). A hybrid integrated multi-objective optimization procedure for estimating nadir point. *Proceedings of Fifth International Conference on Multi-Criterion Optimization (EMO-2009)*. Heidelberg: Springer. (pp. 569–583).
213. **Deb, K.** and Sinha, A. (2009). An evolutionary approach for bilevel multi-objective problems. *Proceedings of 20th International Conference on Multiple Criteria Decision Making (MCDM-09)*, (Also Communications in Computer and Information Science No. 35 entitled 'Cutting-Edge Research Topics on Multiple Criteria Decision Making') Berlin: Springer, (Chengdu, China). (pp. 17–24).

214. **Deb, K.** (2008). Evolutionary multi-objective optimization and decision making. *Proceedings of the Bioinspired Optimization Methods and Their Applications*, Ljubljana, Slovenia: Jozef Stefan Institute Press. (Ljubljana, Slovenia). (pp. 3–15).
215. **Deb, K.** (2008). A robust evolutionary framework for multi-objective optimization. *Proceedings of Genetic and Evolutionary Computation conference (GECCO-2008)*, (Atlanta, USA). (pp. 633–640).
216. Sindhya, K., **Deb, K.**, and Miettinen, K. (2008). A local search based evolutionary multi-objective optimization technique for fast and accurate convergence. *Proceedings of the Parallel Problem Solving From Nature (PPSN-2008)*, (Dortmund, Germany), Berlin, Germany: Springer-Verlag, (pp. 815–824). (11)
217. Kodali, S. P., Bandaru, S., **Deb, K.**, Munshi, P., and Kishore, N. N. (2008). Applicability of Genetic Algorithms to Reconstruction of Projected Data from Ultrasonic Tomography. *Proceedings of Genetic and Evolutionary Computation conference (GECCO-2008)*, (Atlanta, USA). (pp. 1705–1706).
218. Bhatt, A., Varshney, P., and **Deb, K.** (2008). In search of no-loss strategies for the game of Tic-Tac-Toe using a customized genetic algorithm. *Proceedings of Genetic and Evolutionary Computation conference (GECCO-2008)*, (Atlanta, USA). (pp. 889–896).
219. Tiwari, S., Koch, P., Fadel, G. and **Deb, K.** (2008). AMGA: An archive-based micro genetic algorithm for multi-objective optimization. *Proceedings of Genetic and Evolutionary Computation conference (GECCO-2008)*, (12-16 July, 2008, Atlanta, USA). (pp. 729–736).
220. Sharma, D. and **Deb, K.**, and Kishore, N. N. (2008). A domain-specific crossover and a helper objective for generating minimum weight compliant mechanisms. *Proceedings of Genetic and Evolutionary Computation conference (GECCO-2008)*, (Atlanta, USA). (pp. 1723–1724).
221. Madetoja, E., Ruotsalainen, H., Mönkkönen, V.-M., Hämäläinen, J., and **Deb, K.** (2008). Visualizing multi-dimensional Pareto-optimal fronts with a 3D virtual reality system. *Proceedings of the International Multiconference on Computer Science and Information Technology*, Volume 3. (Wisa, Poland). (pp.907–913).
222. **Deb, K.** and Sindhya, K. (2008). Deciphering innovative principles for optimal electric brushless D.C. permanent magnet motor design. *Proceedings of the World Congress on Computational Intelligence (WCCI-2008)*, (Hong Kong), Piscataway: IEEE Press, (pp. 2283–2290).
223. Saxena, D. and **Deb, K.** (2008). Dimensionality reduction of objectives and constraints in multi-objective optimization problems: A system design perspective. *Proceedings of the World Congress on Computational Intelligence (WCCI-2008)*, (Hong Kong), Piscataway: IEEE Press, (pp. 3203-3210).
224. Sharma, D. and **Deb, K.**, and Kishore, N. N. (2008). Towards generating diverse topologies of path tracing compliant mechanisms using a local search based multi-objective genetic algorithm procedure. *Proceedings of the World Congress on Computational Intelligence (WCCI-2008)*, (Hong Kong), Piscataway: IEEE Press, (pp. 2004–2011).
225. Sathe, M., Rudolph, G. and **Deb, K.** (2008). Design and validation of a hybrid interactive reference point method for multi-objective optimization. *Proceedings of the World Congress on Computational Intelligence (WCCI-2008)*, (Hong Kong), Piscataway: IEEE Press, (pp. 2914–2921).

226. **Deb, K.**, Tiwari, R., Dixit, M., and Dutta, J. (2007). Finding trade-off solutions close to KKT points using evolutionary multi-objective optimisation. *Proceedings of the Congress on Evolutionary Computation (CEC-2007)*, (Singapore), (pp. 2109–2116).
227. **Deb, K.** and Kumar, A. (2007). Light beam search based multi-objective optimisation using evolutionary algorithms. *Proceedings of the Congress on Evolutionary Computation (CEC-2007)*, (Singapore), (pp. 2125–2132).
228. Mittal, S. and **Deb, K.** (2007). Three-dimensional offline path planning for UAVs using multi-objective evolutionary algorithms. *Proceedings of the Congress on Evolutionary Computation (CEC-2007)*, (Singapore), (pp. 3195–3202).
229. Avigad, G. and **Deb, K.** (2007). The sequential optimisation-constraint multi-objective problem and its applications for robust planning of robot paths. *Proceedings of the Congress on Evolutionary Computation (CEC-2007)*, (Singapore), (pp. 2101–2108).
230. Sharma, D., Kumar, A., Sindhya, K., and **Deb, K.** (2007). Hybridization of SBX based NSGA-II and sequential quadratic programming for solving multi-objective optimisation problems. *Proceedings of the Congress on Evolutionary Computation (CEC-2007)*, (Singapore), (pp. 3003–3010).
231. Kumar, A., Sharma, D., and **Deb, K.** (2007). A hybrid multi-objective optimisation procedure using PCX based NSGA-II and sequential quadratic programming. *Proceedings of the Congress on Evolutionary Computation (CEC-2007)*, (Singapore), (pp. 3010–3018).
232. Anand, A., Suganthan, P., and **Deb, K.** (2007). A novel fuzzy and multi-objective evolutionary algorithm based gene assignment for clustering short time series expression data. *Proceedings of the Congress on Evolutionary Computation (CEC-2007)*, (Singapore), (pp. 297–304).
233. Daum, D., **Deb, K.**, and Branke, J. (2007). Reliability-based optimisation for multiple constraints with evolutionary algorithms. *Proceedings of the Congress on Evolutionary Computation (CEC-2007)*, (Singapore), (pp. 911–918).
234. Saxena, D. and **Deb, K.** (2007). Trading on infeasibility by exploiting constraint’s criticality through multi-objectivization: A system design perspective. *Proceedings of the Congress on Evolutionary Computation (CEC-2007)*, (Singapore), (pp. 919–926).
235. Garrett, A., **Deb, K.**, and Dozier, G. (2007). NEMO: Neural enhancement for multi-objective optimisation. *Proceedings of the Congress on Evolutionary Computation (CEC-2007)*, (Singapore), (pp. 3108–3113).
236. **Deb, K.**, Padhye, N., and Neema, G. (2007). Interplanetary Trajectory Optimization with Swing-bys Using Evolutionary Multi-Objective Optimization. In L. Kang, Y. Liu, and S. Zeng (eds.) *Proceedings of the Second International Symposium on Intelligence Computation and Application (ISICA-2007)*, LNCS 4683, (Wuhan, China). (pp. 26–35).
237. **Deb, K.**, Lele, S., and Datta, R. (2007). A Hybrid Evolutionary Multi-objective and SQP Based Procedure for Constrained Optimization. In L. Kang, Y. Liu, and S. Zeng (eds.) *Proceedings of the Second International Symposium on Intelligence Computation and Application (ISICA-2007)*, LNCS 4683, (Wuhan, China). (pp. 36–45).

238. **Deb, K.** and Kumar, A. (2007). Interactive evolutionary multi-objective optimization and decision-making using reference direction method. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2007)*, New York: The Association of Computing Machinery (ACM), (London, UK), (pp. 781–788).
239. **Deb, K.**, Karthik, S. and Okabe, T. (2007). Self-adaptive simulated binary crossover for real-parameter optimization. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2007)*, UCL London (July 7-11, 2007). New York: The Association of Computing Machinery (ACM), (London, UK), (pp. 1187–1194).
240. **Deb, K.** and Chaudhuri, S. (2007). I-MODE: An Interactive Multi-Objective Optimization and Decision-Making using Evolutionary Methods, *Proceedings of the Fourth International Conference on Evol. Multi-Criterion Optimization (EMO-2007)*, 5-8 March, Sendai, Japan. (LNCS, Springer) (pp. 788–802)
241. **Deb, K.**, Rao, U. B. and Karthik, S. (2007). Dynamic Multi-Objective Optimization and Decision-Making Using Modified NSGA-II: A Case Study on Hydro-Thermal Power Scheduling Bi-Objective Optimization Problems. *Proceedings of the Fourth International Conference on Evol. Multi-Criterion Optimization (EMO-2007)*, 5-8 March, Sendai, Japan. (LNCS, Springer) (pp. 803–817)
242. **Deb, K.**, Padmanabhan, D., Gupta, S. and Mall, A. K. (2007). Reliability-Based Multi-Objective Optimization Using Evolutionary Algorithms. *Proceedings of the Fourth International Conference on Evol. Multi-Criterion Optimization (EMO-2007)*, 5-8 March, Sendai, Japan. (LNCS, Springer) (pp. 66–80)
243. Datta, D., **Deb, K.** and Fonseca, C. M. (2007). Multi-Objective Evolutionary Algorithms for Resource Allocation Problems. *Proceedings of the Fourth International Conference on Evol. Multi-Criterion Optimization (EMO-2007)*, 5-8 March, Sendai, Japan. (LNCS 4403, Springer) (pp. 401–416)
244. Saxena, D. K. and **Deb, K.** (2007). Non-linear Dimensionality Reduction Procedures for Certain Large-Dimensional Multi-Objective Optimization Problems: Employing Correntropy and a Novel Maximum Variance Unfolding. *Proceedings of the Fourth International Conference on Evol. Multi-Criterion Optimization (EMO-2007)*, 5-8 March, Sendai, Japan. (LNCS, Springer) (pp. 772–787)
245. **Deb, K.** and Saxena, D. (2006). Searching For Pareto-Optimal Solutions Through Dimensionality Reduction for Certain Large-Dimensional Multi-Objective Optimization Problems. *Proceedings of the World Congress on Computational Intelligence (WCCI-2006)* (IEEE Press). Vancouver, Canada. (pp. 3352–3360)
246. Sinha, A., Srinivasan, A. and **Deb, K.** (2006). A Population-Based, Parent Centric Procedure for Constrained Real-Parameter Optimization. *Proceedings of the World Congress on Computational Intelligence (WCCI-2006)* (IEEE Press). Vancouver, Canada. (pp. 943–949).
247. Deshwal, P. and **Deb, K.** (2006). Ergonomic Design of an Optimal Hindi Keyboard for Convenient Use. *Proceedings of the World Congress on Computational Intelligence (WCCI-2006)* (IEEE Press). Vancouver, Canada. (pp. 7951–7958).
248. King, R. T., Rughooputh, H. C. S. and **Deb, K.** (2006). Reliability-Based Stochastic Evolutionary Multi-Objective Environmental/Economic Dispatch. *Proceedings of the World*

- Congress on Computational Intelligence (WCCI-2006)* (IEEE Press). Vancouver, Canada. (pp. 3369–3376).
249. Kukkonen, S. and **Deb, K.** (2006). Improved Pruning of Non-Dominated Solutions Based on Crowding Distance for Bi-Objective Optimization Problems. *Proceedings of the World Congress on Computational Intelligence (WCCI-2006)* (IEEE Press). Vancouver, Canada, (pp. 3905–4002).
 250. Bui L. T, **Deb K.**, Abbass H. A. (2006). Dual guidance in evolutionary multi-objective optimization by localization *Proceedings of the Simulated Evolution and Learning*. Lecture Notes in Computer Science (LNCS) 4247. (pages 384–391).
 251. Kukkonen S. and **Deb K.** (2006). A fast and effective method for pruning of non-dominated solutions in many-objective problems. *Proceedings of the Parallel Problem Solving from Nature (PPSN) Conference*, Lecture Notes in Computer Science (LNCS) 4193. (pages 553–562).
 252. **Deb, K.**, Chaudhuri, S. and Miettinen, K. (2006). Towards estimating nadir objective vector using evolutionary approaches. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2006)*, New York: The Association of Computing Machinery (ACM), (pp. 643–650).
 253. **Deb, K.** and Srinivasan, A. (2006). Innovization: Innovating design principles through optimization. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2006)*, New York: The Association of Computing Machinery (ACM), (pp. 1629–1636)
 254. **Deb, K.** and Sundar, J. (2006). Reference point based multi-objective optimization using evolutionary algorithms. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2006)*, New York: The Association of Computing Machinery (ACM), (pp. 635–642)
 255. **Deb, K.**, Sinha, A. and Kukkonen, S. (2006). Multi-objective test problems, linkages and evolutionary methodologies. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2006)*, New York: The Association of Computing Machinery (ACM), (pp. 1141–1148)
 256. Singh, G. and **Deb, K.** (2006). Comparison of multi-modal optimization algorithms based on evolutionary methodologies. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO-2006)*, New York: The Association of Computing Machinery (ACM), (pp. 1305–1312).
 257. Mittal, S. and **Deb, K.** (2006). Optimal strategies of the iterated prisoner’s dilemma problem for multiple conflicting objectives. *2006 IEEE Symposium on Computational Intelligence and Games*, Piscataway, NJ: IEEE Press, (pp. 197–204).
 258. **Deb, K.** (2006). Practical optimization using evolutionary methods. *International Workshop on Neural Networks and Genetic Algorithm in Material Science and Engineering*, New Delhi: Tata-McGraw-Hill. (pp. 26–43).
 259. **Deb, K.** and Chaudhuri, S. (2005). I-EMO: An interactive evolutionary multi-objective optimization tool. *Proceedings of the First International Conference on Pattern Recognition and Machine Intelligence (PReMI’05)*. Berlin: Springer, (pp. 690–695).

260. Gupta, H. and **Deb, K.** (2005). Handling constraints in robust multi-objective optimization. *Proceedings of the Congress on Evolutionary Computation (CEC-05)*. IEEE Press. (pp. 25–32).
261. Sinha, A., Tiwari, S., and **Deb, K.** (2005). A population-based, steady-state procedure for real-parameter optimization. *Proceedings of the Congress on Evolutionary Computation (CEC-05)*. IEEE Press. (pp. 514–521).
262. **Deb, K.** and Tiwari, S. (2005). Omni-Optimizer: A procedure for single and multi-objective optimization. *Proceedings of the Third International Conference on Evolutionary Multi-Criterion Optimization (EMO-2005)*. Guanajuato, Mexico. Lecture Notes on Computer Science 3410, (pp. 41–65).
263. **Deb, K.** and Gupta, H. (2005). Searching for robust Pareto-optimal solutions in multi-objective optimization. *Proceedings of the Third International Conference on Evolutionary Multi-Criterion Optimization (EMO-2005)*. Guanajuato, Mexico. Lecture Notes on Computer Science 3410, (pp. 150–164).
264. Shukla, P. and **Deb, K.** (2005). Comparing classical generating methods with an evolutionary multi-objective optimization method. *Proceedings of the Third International Conference on Evolutionary Multi-Criterion Optimization (EMO-2005)*. Guanajuato, Mexico. Lecture Notes on Computer Science 3410, (pp. 311–325).
265. King, R. T. F., Rughooputh, H. C. S. and **Deb, K.** (2005). Evolutionary multi-objective environmental/economic dispatch: Stochastic versus deterministic approaches. *Proceedings of the Third International Conference on Evolutionary Multi-Criterion Optimization (EMO-2005)*. Guanajuato, Mexico. Lecture Notes on Computer Science 3410, (pp. 677–691).
266. Datta, D. and Deb, K. (2005). Design of optimum cross-sections for load-carrying members using multi-objective evolutionary algorithms, *Proceedings of International Conference on Systemics, Cybernetics and Informatics (ICSCI)*, Vol. 1, (pp. 571–577).
267. Branke, J., **Deb, K.**, Dierolf, H., and Osswald, M. (2004). Finding knees in multi-objective optimization, In *Parallel Problem Solving from Nature (PPSN-VIII)*, LNCS 3242, Springer, (pp. 722–731).
268. **Deb, K.** and Pal, K. (2004). Solving large-scale integer linear programs using a customized genetic algorithm. *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO-2004*. Seattle, 26–30 June, (pp. 1054–1065). (Also Lecture Notes in Computer Science (LNCS) 3102).
269. **Deb, K.** and Gupta, N. (2004). Optimal operating conditions for overhead crane maneuvering using multi-objective evolutionary algorithms. *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO-2004*. Seattle, 26–30 June, (pp. 1042–1053). (Also Lecture Notes in Computer Science (LNCS) 3102).
270. **Deb, K.**, Mitra, K., Dewri, R. and Majumdar, S. (2004). Unveiling optimal operating conditions for an epoxy polymerization process using multi-objective evolutionary computation. *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO-2004*. Seattle, 26–30 June, (pp. 920–931). (Also Lecture Notes in Computer Science (LNCS) 3102).
271. Branke, J., Schmeck, H., **Deb, K.** and Reddy, M. (2004). Parallelizing multi-objective evolutionary algorithms: Cone separation. *Proceedings of the Congress on Evolutionary Computation (CEC-2004)*. (pp. 1952–1957).

272. Stanley Y. M. Shi, Suganthan, P. N. and **Deb, K.** (2004). Multi-class protein fold recognition using multi-objective evolutionary algorithms. *Proceedings of the IEEE Conference on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB'04)*, (pp. 61–66).
273. **Deb, K.** and Reddy, A. R. (2003). Large-Scale Scheduling of Casting Sequences Using a Customized Genetic Algorithm. *Proceedings of the 6th International Conference on Artificial Evolution (EA-2003)*. Marseille, France. (pp. 248–259). (Also appeared in LCNS-2936: pages 141-152, 2004)
274. Nain, P. K. S. and **Deb, K.** (2003). Computationally effective search and optimization procedure using coarse to fine approximations. *Proceedings of the Congress on Evolutionary Computation (CEC-2003)*, Canberra, Australia, (pp. 2081–2088).
275. **Deb, K.**, Chaudhuri, S., Jain, P., Naveen, G., and Maji, H. (2003). Revealing useful design principles by means of multiple conflicting objectives. *International Congress on Evolutionary Methods for Design, Optimization and Control with Applications to Industrial Problems (EUROGEN 2003)*. Barcelona, Spain.
276. Meena, B. R., Gupta, H., Bandyopadhyay, P., **Deb, K.** and Adimurthy, V. (2003). Robust estimation of aerospace propulsion parameters using optimization techniques based on evolutionary algorithms. *54th International Astronautical Congress of the International Astronautical Federation, the International Academy of Astronautics, and the International Institute of Space Law*, Bremen, Germany.
277. **Deb, K.**, Zope, P. and Jain, A. (2003). Distributed Computing of Pareto-Optimal Solutions Using Multi-Objective Evolutionary Algorithms. *Proceedings of the Second Evolutionary Multi-Criterion Optimization (EMO-03) Conference*, 8-11 April, Faro, Portugal. (pp. 535–549). (Also Lecture Notes in Computer Science (LNCS) 2632). (**18**)
278. **Deb, K.**, Mohan, M. and Mishra, S. (2003). Towards a quick computation of well-spread Pareto-optimal solutions. *Proceedings of the Second Evolutionary Multi-Criterion Optimization (EMO-03) Conference*, 8-11 April, Faro, Portugal. (pp. 222–236). (Also Lecture Notes in Computer Science (LNCS) 2632). (**58**)
279. Reddy, A. R. and **Deb, K.** . (2003). Identification of Multiple Gene Clusters Using Multi-Objective Evolutionary Algorithms. *Proceedings of the Second Evolutionary Multi-Criterion Optimization (EMO-03) Conference*, 8-11 April, Faro, Portugal. (pp. 623–637). (Also Lecture Notes in Computer Science (LNCS) 2632).
280. Khare, V., Yao, X. and **Deb, K.** . (2003). Performance Scaling of Multi-objective Evolutionary Algorithms. *Proceedings of the Second Evolutionary Multi-Criterion Optimization (EMO-03) Conference*, 8-11 April, Faro, Portugal. (pp. 376–390). (Also Lecture Notes in Computer Science (LNCS) 2632). (**67**)
281. Farina, M., **Deb, K.**, and Amato, P. (2003) Dynamic multiobjective optimization problems: Test cases, approximation and applications. *Proceedings of the Second Evolutionary Multi-Criterion Optimization (EMO-03) Conference*, 8-11 April, Faro, Portugal. (pp. 310–324). (Also Lecture Notes in Computer Science (LNCS) 2632).
282. Abbass, H. and **Deb, K.** (2003). Searching under multi-evolutionary pressures. *Proceedings of the Second Evolutionary Multi-Criterion Optimization (EMO-03) Conference*, 8-11 April, Faro, Portugal. (pp. 391–405). (Also Lecture Notes in Computer Science (LNCS) 2632).

283. **Deb, K.** and Jain, S. (2002). Running performance metrics for evolutionary multi-objective optimization. *Proceedings of the Fourth Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, (Singapore). (pp. 13–20).
284. Goel, T. and **Deb, K.** (2002). Hybrid methods for multi-objective evolutionary algorithms. *Proceedings of the Fourth Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*. (Singapore), (pp. 188–192).
285. **Deb, K.**, Joshi, D., and Anand, A. (2002). Real-coded evolutionary algorithms with parent-centric recombination. *Proceedings of the Congress on Evolutionary Computation (CEC-2002)*. (Honolulu, USA). (pp. 61–66).
286. **Deb, K.**, Thiele, L., Laumanns, M. and Zitzler, E. (2002). Scalable multi-objective optimization test problems. *Proceedings of the Congress on Evolutionary Computation (CEC-2002)*. (Honolulu, USA). (pp. 825–830).
287. Laumanns, M., Thiele, L., Zitzler, E., Welzl, E. and Deb, K. (2002). Running time analysis of a multi-objective evolutionary algorithm on a simple discrete optimization problem. *Proceedings of Parallel Problem Solving from Nature (PPSN-VII) Conference*, (LNCS 2439), (pp. 44–53).
288. Jiménez, F., Gómez-Skarmeta, A. F., Sánchez, G. and **Deb, K.** (2002). An evolutionary algorithm for constrained multi-objective optimization. *Proceedings of the Congress on Evolutionary Computation (CEC-2002)*. (Honolulu, USA). (pp. 1133–1138).
289. Mohan, A. and **Deb, K.** (2002). Genetic-fuzzy approach in robot motion planning revisited: Rigorous testing and towards an implementation. *Proceedings of the Advances in Soft Computing Conference (AFSS-2002)*, 3–6 February. (Calcutta, India), (pp. 414–420).
290. **Deb, K.** and Goel, T. (2001) Controlled elitist non-dominated sorting genetic algorithms for better convergence. *Proceedings of the First International Conference on Evolutionary Multi-Criterion Optimization (EMO-2001)*, 7–9 March. (Zürich, Switzerland), (Also LNCS 1993) (pp. 67–81).
291. **Deb, K.**, Pratap, A., and Meyarivan, T. (2001). Constrained test problems for multi-objective evolutionary optimization. *Proceedings of the First International Conference on Evolutionary Multi-Criterion Optimization (EMO-2001)*, 7–9 March. (Zürich, Switzerland), (Also LNCS 1993) (pp. 284–298).
292. **Deb, K.** and Goel, T. (2001). A hybrid multi-objective evolutionary approach to engineering shape design. *Proceedings of the First International Conference on Evolutionary Multi-Criterion Optimization (EMO-2001)*, 7–9 March. (Zürich, Switzerland), (Also LNCS 1993) (pp. 385–399).
293. **Deb, K.**, Pratap, A., Moitra, S. (2000). Mechanical component design for multiple objectives using elitist non-dominated sorting GA. *Proceedings of the Parallel Problem Solving from Nature VI Conference*, 16-20 September. (Paris, France), (pp. 859–868).
294. **Deb, K.**, Agrawal, S., Pratap, A., Meyarivan, T. (2000). A Fast Elitist Non-dominated sorting genetic algorithm for multi-objective optimization: NSGA-II. *Proceedings of the Parallel Problem Solving from Nature VI Conference*, 16-20 September. (Paris, France), (pp. 849–858).

295. Beyer, H.-G. and **Deb, K.** (2000). On the desired behaviors of self-adaptive evolutionary algorithms. *Proceedings of the Parallel Problem Solving from Nature VI Conference*, 16-20 September. (Paris, France), (pp. 59–68).
296. **Deb, K.** (2000). Multi-objective Evolutionary Algorithms: Past, present, and future. *Proceedings of the Fourth Advanced Computing in Design and Manufacture (ACDM-2000) Conference*, 26-28 April. (Plymouth, UK), (pp. 225–236).
297. **Deb, K.** (2000). Multi-objective evolutionary algorithms. *Tenth National Seminar on Aerospace Structures*, 8–10 December 2000. (Kanpur, India), (pp. 116–130).
298. Goel, T. and **Deb, K.** (2000). Optimal shape design using a hybrid genetic algorithms. *Tenth National Seminar on Aerospace Structures*, 8–10 December 2000. (Kanpur, India), (pp. 138–152).
299. **Deb, K.**, Khan, N. and Jindal, S. (2000). Optimal truss-structure design for multiple objectives. *Tenth National Seminar on Aerospace Structures*, 8–10 December 2000. (Kanpur, India), (pp. 168–180).
300. **Deb, K.** (1999). Construction of test problems for multi-objective optimization. *Proceedings of the Genetic and Evolutionary Computation Conference*. 13-17 July 1999. (Orlando, USA), (pp. 164–171). (4)
301. **Deb, K.** (1999). Solving goal programming problems using multi-objective genetic algorithms. *Proceedings of Congress on Evolutionary Computation*, 6-9 July (Washington DC, USA), (pp. 77–84).
302. **Deb, K.** (1999). Evolutionary Algorithms for Multi-Criterion Optimization in Engineering Design. In K. Miettinen, M. Mäkelä, P. Neittaanmäki, and J. Périaux (Eds.) *Proceedings of Evolutionary Algorithms in Engineering and Computer Science (EUROGEN-99)*, 29 May – 03 June 1999. (Jyväskylä, Finland), (pp. 135–161).
303. **Deb, K.** and Agrawal, S. (1999). A niched-penalty approach for constraint handling in genetic algorithms. *Proceedings of the International Conference on Artificial Neural Networks and Genetic Algorithms (ICANNGA-99)*. 6–9 April, 1999. (Portoroz, Slovenia), (pp. 235–243).
304. **Deb, K.** and Beyer, H.-G. (1999). Self-adaptation in real-parameter genetic algorithms with simulated binary crossover. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO)*. 13–17 July 1999. (Orlando, USA) (pp. 172–179).
305. Michalewicz, Z., **Deb, K.**, Schmidt, M., and Stidsen, T. (1999). Towards Understanding Constrained-Handling Methods in Evolutionary Algorithms, *Proceedings of the Congress on Evolutionary Computation, CEC'99*, (pp. 581–588).
306. Michalewicz, Z., **Deb, K.**, Schmidt, M., and Stidsen, T. (1999). Evolutionary Algorithms Engineering applications. In K. Miettinen, M. Mäkelä, P. Neittaanmäki, and J. Périaux (Eds.) *Proceedings of Evolutionary Algorithms in Engineering and Computer Science (EUROGEN-99)*. 29 May – 03 June 1999. (Jyväskylä, Finland), (pp. 73–94).
307. Pratihari, D. K., **Deb, K.**, and Ghosh, A. (1999). Design of a Genetic-Fuzzy System for Planning Optimal Path and Gait Simultaneously of a Six-legged Robot. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO)*. 13–17 July 1999. (Orlando, USA), (pp. 1678–1684).

308. Pratihar, D.K., **Deb, K.**, Ghosh, A. (1999). Path and gait generation of a six-legged robot—A genetic-fuzzy approach. *Proceedings of the International Conference on Mathematical Modeling of Non-linear Systems, ICOMMONS99*, (pp. 86–100).
309. Pratihar, D. K., **Deb, K.**, and Ghosh, A. (1999). Fuzzy-genetic algorithms and mobile robot navigation among static obstacles. *Proceedings of Congress on Evolutionary Computation*, 6-9 July (Washington DC, USA), (pp. 327–334). (5)
310. Pratihar, D. K., **Deb, K.**, Ghosh, A. (1999). Mobile robot navigation among moving obstacles using GA-fuzzy approaches. *Proceedings of the National Conference on Machines and Mechanisms, NACOMM-99* (pp. 394–403).
311. Pratihar, D. K., **Deb, K.**, Ghosh, A. (1999). Design of a genetic-fuzzy system for planning optimal turning gait of a six-legged robot. *Proceedings of the International Conference on Information Technology, ICIT-99*, (pp. 109–114).
312. Oyman, A. I., **Deb, K.**, and Beyer, H.-G. (1999). An alternative constraint handling method for evolution strategies. *Proceedings of Congress on Evolutionary Computation*, 6-9 July (Washington DC, USA), (pp. 612–619).
313. Chakraborty, S., De, S., and **Deb, K.** (1999). Model-based object recognition from a complex binary imagery using genetic algorithms. In R. Poli, H.-M. Voigt, S. Cagnoni, D. Corne, G. D. Smith, and T. C. Fogarty (Eds.) *Evolutionary Image Analysis and Signal Processing and Telecommunications, (EvoIASP'99), Lecture Notes in Computer Science, Springer Verlag, 1596*, (pp. 150–161).
314. **Deb, K.**, Pratihar, D. K., and Ghosh, A. (1998). Learning to avoid moving obstacles optimally for mobile robots using a genetic-fuzzy approach. *Parallel Problem Solving From Nature V*, (Amsterdam, The Netherlands), (pp. 583–592).
315. Chakraborty, S. and **Deb, K.** (1998). Analytic curve detection from a noisy binary edge map using genetic algorithms. *Parallel Problem Solving From Nature V*, (Amsterdam, The Netherlands), (pp. 129–138).
316. **Deb, K.** and Chakraborti, N. (1998). A combined heat transfer and genetic algorithm modeling of an integrated steel plant bloom re-heating furnace. *EUFIT'98*, (Aachen, Germany), (pp. 439–443). (9)
317. Pratihar, D. K., **Deb, K.**, and Ghosh, A. (1998). Planning crab gaits of a six-legged robot using a GA-Fuzzy approach. In R. N. Mahapatra (Ed.): *Proceedings of the International Conference on Information Technology*, (Bhubaneswar, India), New Delhi: Tata-McGraw-Hill, (pp. 221-226).
318. **Deb, K.** and Gulati, S., and Chakraborti, S. (1998). Optimal truss-structure design using real-coded genetic algorithms. *Symposium on Genetic Algorithms*, (Madison, USA), San Mateo: Morgan Kaufmann. (pp. 479–486).
319. Lobo, F., **Deb, K.**, Goldberg, D. E., Harik, G. R., and Wang, L. (1998). Compressed introns in a linkage learning genetic algorithm. *Symposium on Genetic Algorithms*, (Madison, USA), San Mateo: Morgan Kaufmann. (pp. 551–558).
320. **Deb, K.** (1998). Genetic algorithms in search and optimization: The technique and applications. *Proceedings of International Workshop on Soft Computing and Intelligent Systems*, (ISI, Calcutta, India), (pp. 58–87).

321. **Deb, K.** (1997). Genetic algorithms as an optimization tool for engineering design. *Proceedings of the Eighth National Conference on Machines and Mechanisms (NACOMM-97)*. (IIT Kanpur, India), (pp. C-119–130).
322. Chakroborty, P. and **Deb, K.** (1997). A genetic algorithm based procedure for optimal transit systems scheduling. *Proceedings of Fifth International Conference on Computers in Urban Planning and Urban Management*, (IIT Mumbai, India), (pp. 330-341).
323. **Deb, K.** and Saxena, V. (1997). Car suspension design for comfort using genetic algorithms. In Thomas Back (Ed.) *Proceedings of the Seventh International Conference on Genetic Algorithms*, (East Lansing, USA), (pp. 553–560).
324. **Deb, K.** and Goyal, M. (1997). Optimizing engineering designs using a combined genetic search. In Thomas Back (Ed.) *Proceedings of the Seventh International Conference on Genetic Algorithms*, (East Lansing, USA), (pp. 521–528).
325. **Deb, K.** (1997). Optimizing Engineering Designs: A need of time for Indian industries. *Young Scientists Session at the 84th Indian Science Congress*, (New Delhi, India), (pp. 36–37).
326. Sivakumar, K., Iyenger, N. G. R., and **Deb, K.** (1997). Optimum design of laminated composite plates undergoing large amplitude vibration using genetic algorithms. *Fourth International Conference on Composite Engineering (ICCE)*, (Kona, Hawaii).
327. **Deb, K.** (1997). Parallel genetic algorithms: Past, present, and future. *Parallel Computing Conference*, (IIT Kanpur, India).
328. **Deb, K.** (1995). When will genetic algorithms work? In P. K. Roy and S. D. Mehta (Eds.), *Proceedings of the Symposium on Genetic Algorithms*, (Dehradun, India), (pp. 5–22).
329. Srinivas. N. and **Deb, K.** (1995). Comparative study of vector evaluated GA and NSGA applied to multiobjective optimization. In P. K. Roy and S. D. Mehta (Eds.), *Proceedings of the Symposium on Genetic Algorithms*, (Dehradun, India), (pp. 83–90).
330. Chaturvedi, D., **Deb, K.**, and Chakrabarty, S. K. (1995). Structural optimization using real-coded genetic algorithms. In P. K. Roy and S. D. Mehta (Eds.), *Proceedings of the Symposium on Genetic Algorithms*, (Dehradun, India), (pp. 73–82).
331. Agrawal, R. B., Mukherjee, A., and **Deb, K.** (1995). Modelling of inexact 2D shapes using real-coded genetic algorithms. In P. K. Roy and S. D. Mehta (Eds.), *Proceedings of the Symposium on Genetic Algorithms*, (Dehradun, India), (pp. 41–50).
332. Horn, J., Goldberg, D. E., **Deb, K.** (1995). Long path problems. *Proceedings of Parallel Problem Solving from Nature, III*, (Jerusalem, Israel), (pp. 149–158).
333. Rao, T. S., Bose, S. K., Srivathsan, K. R., and **Deb, K.** (1995). A new approach to network topology optimization. In S. V. Raghavan and B. N. Jain (Eds.) *Computer Networks, Architecture and Applications*, (Bangalore, India), (pp. 358–371).
334. **Deb, K.** (1993). Genetic algorithms in engineering design optimization. In J. N. Reddy et al. (Eds.), *Proceedings of the Advanced Study Institute on Computational Methods for Engineering Analysis and Design*, (IIT Chennai, India), (pp. 12.1–12.25). (5)
335. **Deb, K.** (1993). Genetic algorithms in optimal optical filter design. In E. Balagurusamy and B. Sushila (Eds.), *Proceedings of the International Conference on Computing Congress*, (Hyderabad, India), (pp. 29–36).

336. Goldberg, D. E., Deb, K., Kargupta, H., and Harik, G. (1993). Rapid, accurate optimization of difficult problems using messy genetic algorithms. In S. Forrest (Ed.), *Proceedings of the Fifth International Conference on Genetic Algorithms*, (Urbana, USA), (pp. 56–64).
337. Kargupta, H., **Deb, K.**, and Goldberg, D. E. (1992). Ordering genetic algorithms and deception. In R. Manner and B. Manderick (Eds.), *Parallel Problem Solving from Nature II*, (Brussels, Belgium), (pp. 47–56).
338. Goldberg, D. E., **Deb, K.**, and Horn, J. (1992). Massive multimodality, deception, and genetic algorithms. In R. Manner and B. Manderick (Eds.), *Parallel Problem Solving from Nature II*, (Brussels, Belgium), (pp. 37–46).
339. Goldberg, D. E., **Deb, K.**, and Korb, B. (1991). Don't worry, be messy. In R. Belew and L. Booker (Eds.), *Proceedings of the Fourth International Conference in Genetic Algorithms and their Applications*, (San Diego, USA), (pp. 24–30).
340. Parker, J. K., Tan, C., and **Deb, K.** (1991). Determining PID control gain by genetic algorithms, *Twentysecond Annual Pittsburgh Conference on Modeling and Simulation*, (Pittsburgh, USA).
341. **Deb, K.** and Goldberg, D. E. (1990). Natural frequency calculation using genetic algorithms. In S. V. Hanagud et al. (Eds.), *Proceedings of the Fifteenth Southeastern Conference on Theoretical and Applied Mechanics*, (Atlanta, USA), (pp. 94–101).
342. **Deb, K.** (1990). Optimal design of a welded beam via genetic algorithms, *Proceedings of the 31st AIAA/ASME /ASCE/AHS/ASC Structures, Structural Dynamics and Materials Conference (CP-902)*, (Long Beach, CA, USA), (pp. 444-453).
343. Gupta, S. and **Deb, K.** (1990). Strength-to-weight ratio optimization of laminated composite plates under inplane loading, In S. V. Hanagud et al. (Eds.), *Proceedings of the Fifteenth Southeastern Conference on Theoretical and Applied Mechanics*, (Atlanta, USA), (pp. 127–134).
344. **Deb, K.** and Goldberg, D. E. (1989). An investigation of niche and species formation in genetic function optimization, In J. D. Schaffer (Ed.), *Proceedings of the Third International Conference on Genetic Algorithms*, (Washington DC, USA), (pp. 42–50).
345. Wilson, H. and **Deb, K.** (1989). Numerical accuracy in cable dynamics equations, *Proceedings of Twelfth Canadian Congress of Applied Mechanics*, (Toronto, Canada), (pp. 385-386).
346. Samanta, B., Mukherjee, A., and **Deb, K.** (1987). Bond graph adapted modular approach to analysis of planar mechanisms, *Proceedings of Seventh World Congress on the Theory of Machines and Mechanisms*, (Sevilla, Spain), (pp. 439-442).

Papers to be Published in Peer-Reviewed Conference Proceedings

1. Suresh, A. and **Deb, K.** (in press). On the Choice of Unique Identifiers for Predicting Pareto-optimal Solutions using Machine Learning. *Symposium Series in Computational Intelligence (SSCI-2023)*. (Mexico City, Mexico).
2. Yadav, D., Ramu, P., and **Deb, K.** (2023). Finding Robust Solutions for Many-Objective Optimization Using NSGA-III. *Proceedings of IEEE Congress on Evolutionary Computation (CEC-2023)*. (Chicago, USA).

3. Toscano, G., Hoda, R., Nejadhashemi, P., **Deb, K.**, and Linker, L. (2023). Utilizing Innovization to Solve Large-scale Multi-objective Chesapeake Bay Watershed Problem Efficiently. *Proceedings of IEEE Congress on Evolutionary Computation (CEC-2023)*. (Chicago, USA).
4. Yadav, D., Ramu, P., and **Deb, K.** (in press). Multi-objective Robust Optimization and Decision-Making Using Evolutionary Algorithms. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2023)*. (Lisbon, Portugal).
5. Guha, R., Ao, W., Kelly, S., Boddeti, V., Goodman, E., Banzhaf, W. and **Deb, K.** (in press). MOAZ: A Multi-Objective AutoML-Zero Framework. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2023)*. (Lisbon, Portugal).
6. Khan, A. and **Deb, K.** (in press). Optimizing Keyboard Configuration Using Single and Multi-Objective Evolutionary Algorithms. *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2023)*. (Lisbon, Portugal).
7. Kelly, S., Park, D., Song, X., McIntire, M., Nashikkar, P., Guha, R., Banzhaf, W., **Deb, K.**, Boddeti, Tan, J., and Real E. (in press). Discovering Symbolic Adaptation Algorithms from Scratch. *2023 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*. (Kyoto, Japan).

Keynote/Plenary Lectures

1. 26 April, 2000: **Keynote lecture** at the Advanced Computation in Design and Manufacturing Conference (ACDM-2000) in the University of Plymouth, UK entitled ‘Multi-objective evolutionary optimization: Past, present, and future’.
2. 16 January, 2003: **Keynote lecture** on ‘Evolutionary Algorithms for Single and Multiple Objective Optimization’ during the Symposium on Evolutionary Algorithms at Doshisha University, Kyoto, Japan.
3. 17 September, 2003: **Plenary lecture** on ‘Recent Advances on Evolutionary Multi-Objective Optimization’ during EUROGEN-2003 conference in Barcelona, Spain.
4. 8 December, 2003: **Keynote lecture** during ‘CEC-2003’ conference entitled ‘Multi-Objective Evolutionary Optimization’ in Canberra, Australia.
5. 23 June, 2004: **Keynote lecture** during ‘Hydroinformatics’ Conference entitled ‘Single and Multi-Objective Optimization Using Evolutionary Algorithms’ held in Singapore.
6. 7 August, 2004: **Premier Plenary Lecture** entitled ‘Evolutionary Multi-Criterion Optimization’ during the 17th International Conference on Multiple Criteria Decision Analysis held in Whistler, British Columbia, Canada.
7. 12 December, 2005: **Keynote lecture** at GM Symposium entitled ‘Practical Optimization Methods’ held in Bangalore, India.
8. 12 January, 2006: **Plenary lecture** at International workshop on Neural Networks and Genetic Algorithms in Materials Science and Engineering entitled ‘Practical Optimization Methods in Engineering Design’ held in Kolkata, India.

9. 3 August, 2006: **Keynote lecture** at Second South-Asia Altair CAE Users Conference-2006 entitled 'Deciphering Innovative Design Principles Through Optimization' to be held in Bangalore, India.
10. 18 September, 2006: **Plenary lecture** at Bio-inspired Computing: Theory and Applications (BIC-TA) entitled 'Evolutionary Multi-Objective Optimization (EMO): An Emerging Field of Computing for Practical Problem-Solving' to be held in Wuhan, China.
11. 3 November, 2006: **Keynote lecture** at the 2006 International Conference on Computational Intelligence and Security (CIS) entitled 'Evolutionary Optimization for Practical Problem-Solving' to be held in Guangzhou, China.
12. 12 February, 2007: **Keynote lecture** at the Water Resources Workshop at the University of Adelaide, Australia entitled 'Evolutionary optimization for engineering systems'.
13. 23 February, 2007: **Keynote lecture** at the Conference on Current Trends in Computing & Bioinformatics at CSJM University, Kanpur entitled 'Soft Computing Methodologies and Their Potential in Science and Technology'.
14. 24 February, 2007: **Vision talk** at the Indo-US Workshop on Soft, Quantum and Nano Computing (SQUAN-2007) at Dayalbagh University, Agra entitled 'Evolutionary Computing for Practical Optimization'.
15. 23 March, 2007: **Keynote lecture** at Global Conference on Production and Industrial Engineering at National Institute of Technology, Jalandhar entitled 'Computational optimization: An indispensable companion to scientists and practitioners'.
16. 17 April, 2007: **Keynote lecture** at the First international Conference Multidisciplinary Design Optimization and Applications entitled 'Evolutionary Multi-Objective Optimization and Applications' held in Besanon, France.
17. 30 August, 2007: **Plenary Talk** on the 'Research Day' at Helsinki School of Economics, Finland, entitled 'Multi-Criterion Optimization and Decision-Making Using Darwinian Evolutionary Principles: Research and Practices of the Past Decade'.
18. 21 September, 2007: **Keynote lecture** at Symposium on Intelligence Computation and Applications (ISICA 2007) to be held in Wuhan, China.
19. 12 December, 2007: **Plenary talk** at 7th International Conference on Optimization: Techniques and Applications (ICOTA-07) held in Kobe, Japan entitled 'Evolutionary Multiobjective Optimization and Decision Making'.
20. 09 January, 2008: **Keynote lecture** at 19th International Conference on Multiple Criteria Decision Making (MCDM) held in Auckland, New Zealand entitled 'Evolution's Niche in Multi-Criterion Optimization'.
21. 30 September, 2008: **Keynote lecture** at Rolls-Royce Aerodynamic Design optimization Seminar (RR-ADOS) to be held in Rolls-Royce in Derby, UK entitled 'Evolutionary Optimization for Practical Problem Solving'.
22. 13 October, 2008: **Keynote lecture** at the 3rd International Conference on Bioinspired Optimization Methods and their Applications (BIOMA-2008) to be held in Ljubljana, Slovenia entitled 'Evolutionary Multi-Objective Optimization and Decision Making'.

23. 07 December, 2008: **Keynote lecture** at the Seventh International Conference on Simulated Evolution And Learning (SEAL'08) to be held in Melbourne, Australia entitled 'Evolutionary Multi-Objective Optimization and Decision Making'.
24. 12 February, 2009: **Keynote lecture** at the Sixth Spanish Conference on Metaheuristics entitled 'Evolutionary Multi-objective Optimization'.
25. 19 May, 2009: **Keynote lecture** at the IEEE Congress on Evolutionary Computation (CEC-2009) to be held in Trondheim, Norway entitled 'Evolution's Niche in Applied Optimization and Informatics'.
26. 4 June, 2009: **Keynote lecture** at Papermaking Research Symposium in Kuopio, Finland entitled 'Evolutionary Optimization in Practice'.
27. 24 April, 2010: **Keynote lecture** at a workshop on 'The Art and Science of Product Development' at General Motors, Bangalore entitled 'Innovization and its application in product design and development'.
28. 15 September, 2010: **Keynote lecture** at 15th FIRA Robot World Cup and Congress at Bangalore, India entitled 'Evolutionary Multi-Objective Optimization and Applications in Games and Robotics'.
29. 16 December, 2010: **Keynote lecture** at International conference on Swarm, Evolutionary and Memetic Computing (SEMCCO 2010) in Chennai, India, entitled 'Evolutionary Multi-Objective Optimization'.
30. 23 March, 2011: **Keynote lecture** at the National Conference on Operations Research Applications in G. L. Bajaj Institute of Technology and Management, Greater Noida, India, entitled 'Evolutionary Optimization in Operations Research'.
31. 14 September 2011: **Plenary lecture** at the International Conference on Evolutionary and Deterministic Methods for Design, Optimization and Control with Applications to Industrial and Societal Problems (EUROGEN-2011), Italian Aerospace Research Center (CIRA), Capua, Italy, entitled 'Multi-Objective Optimization for Engineering Design'.
32. 04 November, 2011: **Plenary lecture** at the Optimization Seminar organized by Vanderplatts Inc. in Detroit, USA entitled 'Evolutionary optimization and its scope in practical problem solving'.
33. 09 November, 2011: **Plenary lecture** at Users' group meeting of ModeFrontier at Detroit, USA entitled 'Innovization: Revealing innovative design principles through multi-objective optimization'.
34. 25 January, 2012: **Keynote lecture** at Dagstuhl Seminar on "Practical Multi-objective Optimization" entitled 'Innovization: Learning Problem Knowledge Through Multi-Objective Optimization' held at Schloss Dagstuhl, Saarbrucken, Germany.
35. 26 February, 2012: **Guest of Honor Lecture** at Central Mechanical and Electrical Research Institute (CMERI), Durgapur, India on 'An Introduction to Evolutionary Multi-objective Optimization'.
36. 17 March, 2012: **Keynote lecture** at the Students Conference on Engineering and Systems (SCES-2012) held at MNNIT, Allahabad, India entitled 'Niches of Evolutionary Optimization in Practice'.

37. 10 July, 2012: **Keynote lecture** at the 14th IPMU conference (International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems) at Catania, Italy on ‘Evolutionary Multi-Objective Optimization’.
38. 29 September, 2012: **Keynote lecture** at Fourth Symposium on Search Based Software Engineering (SSBSE 2012) in Riva del Garda, Italy entitled ‘Recent Advancements in Evolutionary Multi-objective Optimization’.
39. 20 March, 2013: **Keynote lecture** at Seventh International Conference on Evolutionary Multi-Criterion Optimization (EMO-13) held at University of Sheffield, UK entitled ‘Many-Objective Evolutionary Optimization’.
40. 11 January 2014: **Keynote Lecture** at University of Pune, India entitled ‘Applied optimization with single and multiple conflicting criteria’.
41. 29 May 2014: **Keynote Lecture** at International Workshop on Optimization in Engineering held at Bankura, India entitled ‘Role of optimization in engineering problem solving’.
42. 1 July 2014: **Keynote Lecture** at International Conference on EVOLVE held in Beijing, China entitled ‘Uncertainty handling using evolutionary multi-objective optimization’.
43. 8 July 2014: **Invited Lecture** at World Congress on Computational Intelligence (WCCI-2014) held at Beijing, China entitled ‘Evolutionary Multi-objective optimization: Two eventful decades and beyond’.
44. 24 September 2014: **Keynote Lecture** at Numerical and Evolutionary Optimization (NEO-2014) Conference held at Mexico City, Mexico entitled ‘How Useful Theoretical Optimality Conditions Are in Assessing Numerical and Evolutionary Optimization Algorithms?’.
45. 3 October 2014: **Keynote Lecture** at INFORMS Southeast Michigan Symposium held at Kellogg Center, East Lansing, USA entitled ‘Evolutionary multi-criterion optimization and decision-making’.
46. 15 October 2014: **Keynote Lecture** at ‘Optimize This!’ – Red Cedar Technology Software User’s group meeting to be held at Detroit, USA entitled ‘Recent developments in evolutionary multi-objective optimization’.
47. 10 December 2014: **Keynote Lecture** at Third International Conference on the Theory and Practice of Natural Computing (TPNC 2014) to be held at Granada, Spain entitled ‘Evolutionary multi-criterion optimization and decision-making’.
48. 12 December 2014: **IEEE Distinguished Lecture** at IIT Kanpur, India entitled ‘Evolutionary multi-criterion optimization: Introduction to Theories and Applications’.
49. 26 February 2015: **Keynote Lecture** at North American Search Based Software Engineering Symposium (NasBASE-2015) entitled ‘Recent Advancement and Applications of Evolutionary Multi-Criterion Optimization in SBSE’.
50. 18 June 2015: **Keynote Lecture** at EVOLVE Conference at Iasi, Romania entitled ‘Evolutionary Multi-Objective Optimization and Its Applications’.
51. 22 July 2015: **Institute Lecture** at Indian Institute of Technology Kharagpur, India entitled ‘Evolutionary Optimization for Engineering Problem Solving’.

52. 24 July 2015: **Keynote Lecture** at 30th National Convention of Production Engineers and organized by Tripura State Centre of The Institution of Engineers (India) at National Institute of Technology Agartala, India entitled 'Nature's Niche in Applied Problem Solving'.
53. 7 August 2015: **Infosys Lecture** at Indraprastha Institute of Information Technology (IIIT-D), Delhi entitled 'Nature's Niche in Multi-criterion Design and Optimization'.
54. 18 September 2015: **Invited Lecture** during Big Data Analytics conference entitled 'A Dynamic Optimization Framework for Practical Problem Solving' organized by Quicken Loan and Title Source.
55. 25 September 2015: **Ezra Roundtable Systems Engineering Lecture** at Cornell University entitled 'Nature's Niche in Multi-criterion Design and Optimization'.
56. 23 November 2015: **IEEE Distinguished Lecture** at City University of Hong Kong entitled 'Recent Advances in Evolutionary Many-Criterion Optimization'.
57. 24 November 2015: **Keynote Lecture** at Second International Conference on Soft Computing & Machine Intelligence (ISCMI-2015) entitled 'Evolutionary Optimization for Practical Problem Solving'.
58. 26 November 2015: **IEEE Distinguished Lecture** at USTC, Hefei, China entitled 'Advances in Evolutionary Multi-Criterion Optimization and Decision-Making'.
59. 4 February 2016: **Keynote Lecture** at ACALCI, organized by University of New South Wales, Canberra, Australia entitled 'A Theoretical Convergence Measure for Multi-Objective Optimization Algorithms'.
60. 5 February 2016: **Keynote Lecture** at Computational Optimization in Engineering Design Workshop at University of New South Wales, Canberra, Australia entitled 'Evolutionary Advances in Evolutionary Many-objective Optimization Methods'.
61. 29 February 2016: **This Weeks Discoveries Series Lecture** at Leiden University entitled 'Breaking the Billion Variable Barrier in Real-World Optimization'.
62. 01 April, 2016: **Beacon Lecture** at NSF-Beacon Center at MSU entitled 'Breaking the Billion Variable Barrier in Real-World Optimization'.
63. 24 September, 2016: **Keynote Lecture** at IEEE International Conference on Research in Computational Intelligence and Communication Networks (ICRCICN 2016) held at Kolkata, India entitled 'Multi-objective optimization for Computational Intelligence'.
64. 23 September, 2016: **JC Bose Memorial Award Lecture** at Indian Statistical Institute, Kolkata, India entitled 'Optimization via Nature: Principles, Performances, and Promises'.
65. 26 September, 2016: **Institute Lecture** at Indian Institute of Technology Guwahati, India entitled 'Nature Inspired Methods for Optimization'.
66. 12 October 2016: **Keynote Lecture** at 'Optimize This!' Heeds Users Conference entitled 'Visualizing Many-Objective Optimal Solutions for an Informed Decision-Making'.
67. 23 November 2016: **IEEE Distinguished Lecture** at RMIT, Australia and University of Melbourne entitled 'Niches of Population-Based Optimization Algorithms in Practice'.

68. 23 December, 2017: **Keynote Lecture** at 7th International Conference Soft Computing for Problem Solving (SocProS-2017) at IIT Bhubaneswar, India entitled 'Nature's Niche in Optimization Problem Solving'.
69. 9 July, 2018: **Plenary Lecture** at 2018 World Congress on Computational Intelligence (WCCI-2018) held at Rio de Janeiro, Brazil entitled 'The Rise of Evolutionary Multi-Criterion Optimization: Directed or Destined'.
70. 26 July, 2018: **Keynote Lecture** at International Seminar on Intelligent Computing (ISIC-2018) conference at RCC Institute of Information Technology, Kolkata, India entitled 'Rise of Evolutionary Multi-Objective Optimization: Past 25 Years of Research and Application'.
71. 27 July, 2018: **Keynote Lecture** at Second International Conference on Computational Intelligence, Communications, and Business Analytics (CICBA-2018) held at University of Kalyani, India, entitled 'Customized Optimization for Practical Problem Solving'.
72. 26 September, 2018: **Keynote Lecture** at Numerical and Evolutionary Optimization (NEO-2018) held at Mexico City, Mexico entitled 'Extreme-Scale Evolutionary Optimization: A Case Study on a Billion-Variable Resource Allocation Problem'.
73. 20 November 2018: **IEEE CIS Distinguished Lecture** at Indian Institute of Science, Bangalore, India entitled 'Rise of Evolutionary Multi-Criterion Optimization: A 25-Year Perspective'.
74. 20 November, 2018: **Plenary Lecture** at Symposium Series of Computational Intelligence (SSCI-2018) held at Bangalore, India entitled 'Customized Optimization for Practical Problem Solving'.
75. 14 January, 2019: **Invited Lecture** at BioSense Institute, Serbia entitled 'Multi-objective Optimization and Its Application in Precision Irrigation Systems'.
76. 21 March, 2019: **Invited Lecture** at King Mongkut's University (KMUTT), Bangkok, Thailand entitled 'Introduction to Genetic Algorithms and Evolutionary Computing'.
77. 21 March, 2019: **Invited Lecture** at King Mongkut's University (KMUTT), Bangkok, Thailand entitled 'Trends in Multi-Objective Optimization'.
78. 24 March, 2019: **Keynote Lecture** at ISMSI-2019 conference in Male, Maldives entitled 'Customized Metaheuristics for Intelligent System Design'.
79. 25 March, 2019: **Infosys Lecture** at M S Ramaiah University of Applied sciences, Bangalore, India entitled 'Customized Optimization for Practical Problem Solving'.
80. 18 June, 2019: **Keynote Lecture** at Numerical Computations – Theory and Algorithms (NUMTA-2019) Conference at Crotone, Italy entitled 'Karush-Kuhn-Tucker Proximity Measure for Convergence of Real-parameter Single and Multi-objective Optimization'.
81. 21 June, 2019: **IEEE CIS Distinguished Lecture** at Genova, Italy entitled 'Customized Optimization for Practical Problem Solving'.
82. 10 July, 2019: **Invited Lecture** at Department of Mathematics, Indian Institute of Technology Roorkee entitled 'A Theoretical Proximity Measure for Convergence of Single and Multi-Criterion Evolutionary Optimization'.
83. 23 July, 2019: **Institute Lecture** at Indian Institute of Technology Roorkee, India entitled 'Optimization: Scope, Methods, Challenges, and Directions for Practical Problem Solving'.

84. 15 August, 2019: **Invited Lecture** at ASSAR Technology Park Workshop organized at University of Skovde, Sweden entitled 'Large Scale Optimization For Real-World Applications'.
85. 25 September, 2019: **Keynote Lecture** at IPDO Conference in Tianjin, China entitled 'Customized Optimization for Practical Problem Solving'.
86. 16 October, 2019: **Keynote Lecture** at 15th International Congress Technological Trends in Computing (CTTC-2019) in Mexico City entitled 'Advances in Multi-objective Optimization'.
87. 01 November 2019: **Plenary Lecture** Lecture at ICETET-SIM-2019 Conference at G. H. Raisoni College of Engineering, Nagpur, India entitled 'Customized Optimization for Practical Problem Solving'.
88. 15 November 2019: **Invited Lecture** at Workshop on "Emergent Optimization Methods and Applications" at IIT Roorkee Extension, Greater Noida, India entitled 'Engine Design for Six Objectives'.
89. 20 November 2019: **Keynote Lecture** at Internatioonal Conference on Artificial Intelligence and Applications held at College of Engineering Roorkee, India entitled 'Evolutionary Computation and Machine Learning Reinforce Each Other'.
90. 12 December 2019: **Keynote Lecture** at SOM-2019 Conference at IIT Kanpur, India entitled 'Heuristics and Metaheuristics: Applications and Future'.
91. 29 June 2020: **Keynote Lecture** at Deep Learning and Artificial Intelligence Summer School 2020 (DLAI3) at Bangkok, Thailand entitled 'Recent Advances in Evolutionary Multi-Criterion Optimization and Future Studies' (online).
92. 10 July, 2020: **Keynote Lecture** at GECCO-2020 Conference at Cancun, Mexico entitled 'Evolutionary Computation's Niche for Solving Multi-Criterion Optimization Problems' (online).
93. 5 August, 2020: **Plenary Lecture** at International Conference on Modeling, Simulations and Optimizations (CoMSO-2020) at Silchar, India entitled 'Nature's Niche in Solving Multi-Criterion Optimization' (online).
94. 5 September, 2020: **Keynote Lecture** at International Conference on Recent Advances in Computational and Experimental Mechanics (ICRACEM) at IIT Kharagpur entitled 'Advances in Optimization Methods for Engineering Problem Solving' (online).
95. 1 October, 2020: **Invited lecture** at Caterpillar, Chicago entitled 'Interpretable AI-based Policies Using Hierarchical Nonlinear Decision Trees' (online).
96. 25 October, 2020: **Keynote Lecture** at National Conference on Multidisciplinary Design, Analysis and Optimization (NCMDAO-2020) at Trivandrum, India entitled 'A Taxonomy for Surrogate Assisted Multi-objective Optimization' (online).
97. 02 November, 2020: **Keynote Lecture** at The 12th International Joint Conference on Computational Intelligence (IJCCI-2020) at Budapest, Hungary entitled 'Nature-Inspired Multi-Objective Optimization' (online).
98. 18 November, 2020: **Keynote Lecture** at Numerical and Evolutionary Optimization (NEO-2020) Conference at Oaxaca , Mexico entitled 'Evolutionary Multi-Criterion Optimization: Three Decades of Research and Applications' (online).

99. 5 December, 2020: **Keynote Lecture** at 6th International Conference on Big Data and Information Analytics (BigDIA2020) at Beijing, China entitled ‘Billion-Dimensional Problem Solving and Information Analytics using Computational Intelligence Methods’ (online).
100. 18 December, 2020: **Keynote Lecture** at SocPros-2020 Conference at Indore, India entitled ‘Rise of Evolutionary Multi-Criterion Optimization’ (online).
101. 29 December, 2020: **Keynote Lecture** at International Conference on Computational Intelligence, Security & IoT (ICCISIoT-2020) Conference at NIT Agartala, India entitled ‘Computational Intelligence for Solving Large-Scale Practical Problems’ (online).
102. 22 January, 2021: **Keynote Lecture** at Mahindra AFS Technology Symposium, Bangalore, India entitled ‘Customized Optimization for Practical Problem Solving’ (online).
103. 6 February 2021: **Distinguished Lecture** at Dayalbagh Educational Institute, Agra, India entitled ‘Societal Problem Solving involving Many Objectives’ (online).
104. 22 February, 2021: **Invited Talk** at Delft Univeristy, The Netherlands entitled ‘Optimization and AI Problem Solving with Knowledge’. (online)
105. 26 March, 2021: **Keynote Lecture** at the Virtual International Conference on Soft Computing, Optimization Theory and Applications (SCOTA-2021) entitled ‘A Convergence Measure of Single and Multi-Criterion Evolutionary Optimization’. (online)
106. 6 April, 2021: **Keynote Lecture** at the First International Conference on Artificial Intelligence and Data (CAIDA2021) entitled ‘Interpretable Artificial Intelligence Policies Using Nonlinear Decision Trees’. (online)
107. 30 April, 2021: **Invited Lecture** at Indian Institute of Technology Jodhpur, India entitled ‘Explainable AI (XAI) using Nonlinear Decision Trees’. (online)
108. 28 June, 2021: **Plenary Lecture** at the 14th International Conference on Evolutionary and Deterministic Methods for Design, Optimization and Control (EUROGEN-2021) entitled ‘Customized Optimization for Engineering Problem Solving’. (online)
109. 26 August, 2021: **Keynote Lecture** at the Emerging Techniques in Computational Intelligence 2021 Conference at Mahindra University, India, entitled ‘Multi-Criterion Search and Optimization Using Evolutionary Computation’. (online)
110. 01 September, 2021: **Keynote Lecture** at Three-day SPARC workshop at IIT Hyderabad, India entitled ‘Uncertainty Handling in Multi-objective and Multi-Level Optimization’. (online)
111. 14 December, 2021: **Keynote Lecture** at Third World Congress on Nature and Biologically Inspired Computing (NaBIC-2021) and the 12th International Conference on Soft Computing and Pattern Recognition (SoCPaR-2021) entitled ‘Customized Evolutionary Optimization for Practical Problem Solving’. (online)
112. 14 May, 2022: **Keynote Lecture** at 11th International Conference on Soft Computing for Problem Solving (SocProS 2022) entitled ‘ML-based Optimization for Efficient Applications’.
113. 7 July, 2022: **Keynote Lecture** at International Conference on Advanced Communications and Machine Intelligence (MICA 2022) at Karur, Tamil Nadu, India entitled ‘Machine Learning for Improving Performance of Evolutionary Optimization’.

114. 11 July, 2022: **Plenary Lecture** at 14th edition of the Metaheuristics International Conference (MIC-2022) entitled ‘Evolutionary Computation’s Niche for Multi-Criterion Optimization’.
115. 22 September, 2022: **University Lecture** at Uppsala University, Sweden entitled ‘Evolutionary Multi-Criterion Optimization: An Emerging Computational Problem-Solving Tool’.
116. 22 November, 2022: **Keynote Lecture** at 4th International Conference on Emerging Trends in Electrical, Electronic and Communications Engineering (ELECOM-2022) entitled ‘Multi-Criterion Optimization in Applied Problem Solving Tasks’.
117. 27 January, 2023: **Keynote Lecture** at the Fifth International Conference on Computational Intelligence in Communications and Business Analytics (CICBA-2023) at Kalyani Government Engineering College, Kalyani, West Bengal, India entitled ‘Evolutionary Multi-Criterion Optimization: An Emerging Computational Problem-Solving Tool’.
118. 06 February, 2023: **Otto-von-Guericke Lecture** at Otto von Guericke University Magdeburg entitled ‘Evolutionary Multi-Criterion Optimization: An Emerging Computational Problem-Solving Tool’.
119. 22 March, 2023: **Keynote Lecture** at 12th International Conference Series on Evolutionary Multi-Criterion Optimization (EMO-2023) at Leiden University, The Netherlands entitled ‘Lessons from 30 Years of EMO: What Lies Ahead?’.
120. 16 July, 2023: **Keynote Lecture** at 4th International Conference and Summer School on Numerical Computations: Theory and Algorithms (NUMTA-2023) entitled ‘Practical Optimization Using Evolutionary Algorithms’.
121. 22 September, 2023: **Keynote Lecture** at the International Conference on Emerging Techniques in Computational Intelligence entitled ‘Advances in Evolutionary Multi-Criterion Optimization’.