

# Subrata Dasgupta

## *Curriculum Vita*

*Author, scholar and professor: writings span computer science & design theory, intellectual and cognitive history & biography, creativity and cognitive studies, science & technology studies, memoirs, and fiction. Author of 18 books including most recently: **Awakening: The Story of the Bengal Renaissance** (intellectual/cognitive history, 2010), **It Began with Babbage: The Genesis of Computer Science** (history of computer science, 2014), **Computer Science: A Very Short Introduction** (philosophy of computer science, 2016), and **The Second Age of Computer Science : From Algol Genes to Neural Nets** (history of science, 2018), **Voice of the Rain Season**, fiction, 2018), and **A Cognitive Historical Approach to Creativity** (creativity studies, 2019).*

### **PRESENT POSITIONS:**

Professor Emeritus  
School of Computing & Informatics,  
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### **EDUCATION:**

Bachelor of Engineering (B.E.), First Class, Metallurgy, University of Calcutta, Calcutta, India 1967.

Master of Science (M.Sc), Computer Science, University of Alberta, Edmonton, Canada, 1974.

Doctor of Philosophy (Ph.D), Computer Science, University of Alberta, Edmonton, Canada, 1976.

## **POSITIONS HELD**

### ***Present :***

2018- : Professor Emeritus, School of Computing & Informatics, University of Louisiana at Lafayette, Lafayette, Louisiana , USA.

### ***Most Recent:***

1993-2018: Computer Science Trust Fund Eminent Scholar Chair, University of Louisiana at Lafayette, Lafayette, Louisiana, USA

2000-2013 : Director, Institute of Cognitive Science, University of Louisiana at Lafayette, Lafayette, Louisiana, USA.

2000-2018 : Adjunct Professor, Department of History, University of Louisiana at Lafayette, Lafayette, Louisiana, USA.

### ***Past:***

1992-1993: Dowty Professor of Computer Systems Engineering, University of Manchester Institute of Science & Technology, Manchester, UK.

1986-1993: Edmiston Professor of Computer Science, University of Louisiana at Lafayette, Lafayette, Louisiana, USA.

1984-1986: Professor of Computer Science, University of Louisiana at Lafayette, Lafayette, Louisiana, USA.

1982-1984: Associate Professor of Computer Science, University of Louisiana at Lafayette, Lafayette, Louisiana, USA.

1980-1982: Associate Professor of Computing Science, University of Alberta, Edmonton, Alberta, Canada.

1979-1980: Assistant Professor of Computer & Information Science, Ohio State University, Columbus, Ohio, USA.

1976-1979: Assistant Professor of Computer Science, Simon Fraser University, Burnaby, British Columbia, Canada.

1974-1976: National Research Council of Canada (NRC) Post-Graduate Scholar, University of Alberta, Edmonton, Alberta, Canada.

1972-1974: Graduate Teaching Assistant in Computing Science, University of Alberta, Edmonton, Alberta, Canada.

1968-1971: Programmer & Systems Analyst, IBM World Trade Corporation, Calcutta, India.

1967-1968: Assistant Project Engineer, M.N. Dastur & Co., Calcutta, India.

## **VISITING POSITIONS**

1977, Summer: Senior Visitor, Computer Laboratory, University of Cambridge, Cambridge, UK.

1983, January: Visiting Scientist, Lehrstuhl für Informatik, Technische Hochschule Aachen, Aachen, Germany.

1986, Summer: Visiting Fellow, Wolfson College and University Computing Laboratory, University of Oxford, Oxford, UK.

1988, Summer: German Science Foundation Guest Professor, Universität Oldenburg, Oldenburg, Germany.

1990, Summer: Distinguished Visitor, Centre for Systems Sciences, Simon Fraser University, Burnaby, British Columbia, Canada.

1991, Summer: United Nations Developing Program (UNDP) Consultant and Visiting Scientist, Centre for Development in Advanced Computing (C-DAC) and Indian Institute of Science, Bangalore, India.

### **HONORS AND RECOGNITION**

Outstanding Research Award, Sigma Xi Chapter, University of Louisiana at Lafayette, 1987.

Distinguished Professor Award, University of Louisiana Foundation, 1989.

Phi Kappa Phi South Central Region Scholar Award, Phi Kappa Phi Honor Society, 2002.

Elected Life Member, Phi Kappa Phi Honor Society

Biographical Entry, *Who's Who in America*.

Biographical Entry, *Who's Who in the World*.

Biographical Entry, *Who's Who in American Education*.

Biographical Entry, *Writers Directory*.

Biographical Entry, *Contemporary Authors*.

Biographical Entry, *2000 Outstanding Writers of the Twentieth Century*.

Albert Nelson Marquis Lifetime Achievement Award, 2017 (from Marquis Who's Who Publication Board).

Longlisted for Vodafone Crossword Award in Nonfiction (for *Awakening*), 2011.

A Choice 'Outstanding Academic Title for 2014' (for *It Began with Babbage*), 2015.

### **KEYNOTE & INVITED LECTURES**

#### **Computer Science, Design Theory and Related Topics.**

Jadavpur University, Calcutta, India, 1974.

University of Texas San Antonio, Texas, USA, 1975.

Simon Fraser University, Burnaby, BC, Canada, 1975.

University of British Columbia, Vancouver, BC, Canada, 1978.

Jawaharlal Nehru University, New Delhi, India, 1979.

Ohio State University, Columbus, Ohio, USA, 1979.

University of British Columbia, Vancouver, BC, Canada, 1980.

University of Newcastle-upon-Tyne, Newcastle, UK, 1981.  
Queen's University, Kingston, Ontario, Canada, 1981.  
International Conference on Communications, Systems & Control, Calcutta, India, 1981.  
University of Waterloo, Waterloo, Ontario, Canada, 1981.  
Indian Statistical Institute, Calcutta, India, 1982.  
Indian Institute of Management, Calcutta, India, 1982.  
Texas Instruments, Dallas, Texas, USA, 1982.  
University of Louisiana at Lafayette, Lafayette, Louisiana, USA, 1982.  
Technische Hochschule Aachen, Aachen, Germany, 1983.  
University of Maryland, College Park, Maryland, USA, 1983.  
Louisiana State University, Baton Rouge, Louisiana, USA, 1984.  
Indian Institute of Technology, Kharagpur, India, 1984.  
Regional Computer Centre, Jadavpur University, Calcutta, India, 1985.  
Southern Methodist University, Dallas, Texas, USA, 1985.  
Carnegie-Mellon University, Pittsburgh, Pennsylvania, USA, 1986.  
Cray Research Inc., Chippewa Falls, Wisconsin, USA, 1986.  
Indian Institute of Science, Bangalore, India, 1986.  
University of California, Irvine, California, USA, 1987.  
University of Cincinnati, Cincinnati, Ohio, USA, 1988.  
Universitat Oldenberg, Oldenberg, Germany, 1988.  
Case Western Reserve University, Cleveland, Ohio, 1988.  
University of Texas, Arlington, Arlington, Texas, USA, 1989.  
Electronics & Radar Development Establishment (Ministry of Defence, Government of India), Bangalore, India, 1989.  
Computer Society of India, Bangalore Chapter, Bangalore, India, 1989.  
Simon Fraser University, Burnaby, British Columbia, Canada, 1990.  
University of Manchester Institute of Science & Technology, Manchester, UK, 1991.  
Centre for the Development of Advanced Computing, Bangalore, India, 1991.  
The Institution of Engineers (India), Bangalore Chapter, Bangalore, India, 1991.  
Indian Institute of Science, Bangalore, India, 1991.  
Conference on Artificial Intelligence & Knowledge Based Systems, Bangalore, India, 1991.  
First International Conference on Intelligence Systems Engineering, Edinburgh, UK, 1992.  
Dowty Command & Control Systems, London, UK, 1993.  
University of Sydney, Sydney, Australia, 1994.  
Griffith University, Brisbane, Australia, 1994.  
Centre for the Study of Social Sciences, Calcutta, India, 1994.  
Jadavpur University, Calcutta, India, 1994.  
World Conference on Neural Networks-95, Washington, DC, USA, 1995  
Bucknell University, Lewisburg, Pennsylvania, USA, 1997.  
Jadavpur University, Calcutta, India, 1999.  
Florida Conference on Artificial Conference (FLAIRS-2000), Orlando, Florida, USA, 2000.

13<sup>th</sup> International Conference on Industrial Applications of Artificial Intelligence & Expert Systems (IEA/AIE 2000), New Orleans, Louisiana, USA, 2000.

**Science and Technology Studies, Creativity and Cognitive Studies, Philosophy of the Sciences of the Artificial, Intellectual & Cognitive History**

Vassar College, Poughkeepsie, New York, USA, 1996.

National Institute of Science, Technology & Development Studies, New Delhi, India, 2000.

Harvard University, Cambridge, Massachusetts, USA, 2001.

Society for the Philosophy of Technology Conference, Aberdeen, UK, 2001.

Karl Popper Birth Centenary Congress, Vienna, Austria, 2002.

Jadavpur University, Calcutta, India, 2002.

University College of Science Calcutta & Centre for Development Studies, Calcutta, India, 2003.

International Child Art Foundation (ICAF) Festival, Washington, DC, USA, 2003.

Massachusetts Institute of Technology, Cambridge, Massachusetts, USA, 2003.

Conference on Social Studies of Science in India, South Asia Studies Forum, Cambridge, Massachusetts, USA, 2003.

Speaker & Book Reading, Oxford Bookstore, Calcutta, India, 2007.

Speaker & Book Reading, India Habitat Centre, New Delhi, India, 2007.

University of California, Merced, California, USA, 2010.

Conference on Creativity, Innovation and Complexity in Science, A Corunã, Spain, 2010.

Leonard Conference on Philosophy, University of Nevada, Reno, Nevada, USA, 2011.

European Science Foundation- Philosophy of Science Group Conference on Sciences of the Artificial, Bucharest, Romania, 2011.

American Economic Association Session on Herbert Simon, San Francisco, 2015.

INSA Conference on 'Emergence of Modern Science in Colonial India", New Delhi, 2018.

**Literary: Book Readings**

Bath Literature Festival, Bath, UK, 2006.

Oxford Bookstore, Calcutta, India, 2007.

India Habitat Centre, New Delhi, India, 2007.

**PUBLICATIONS**

**Books: Computer Science, History and Philosophy of Computer Science**

1. Subrata Dasgupta, *The Design and Description of Computer Architectures*, John Wiley, New York, USA, 1984.
2. Subrata Dasgupta, *Computer Architecture: A Modern Synthesis. Vol.1. Foundations*. John Wiley, New York, USA, 1989.
3. Subrata Dasgupta, *Computer Architecture: A Modern Synthesis. Vol. 2. Advanced Topics*, John Wiley, New York, USA, 1989.

4. Subrata Dasgupta, *Design Theory and Computer Science*, Cambridge University Press, Cambridge, UK, 1991. Paperback 2009.
5. Subrata Dasgupta, *It Began with Babbage: The Genesis of Computer Science*. New York: Oxford University Press, 2014. **{A Choice 'Outstanding Academic Title for 2014; A Guardian 'Best Book in Science', March 2014}**
6. Subrata Dasgupta, *Computer Science: A Very Short Introduction*, Oxford University Press, Oxford, UK, 2016. {A volume in OUP's "Very Short Introduction" Series}.
7. Subrata Dasgupta, *The Second Age of Computer Science: From Algol Genes to Neural Nets*. New York: Oxford University Press. 2018.

#### **Books: Creativity Studies**

8. Subrata Dasgupta, *Creativity in Invention and Design*, Cambridge University Press, New York, USA, 1994. Paperback 2009.
9. Subrata Dasgupta, *Technology and Creativity*. Oxford University Press, New York, USA, 1996.
10. Subrata Dasgupta. *A Cognitive Historical Approach to Creativity* . Routledge, London, 2019.

#### **Books: Intellectual and Cognitive History/ Biography**

11. Subrata Dasgupta, *Jagadis Chandra Bose and the Indian Response to Western Science*, Oxford University Press, New Delhi, 1999. Paperback, Permanent Black, New Delhi, India, 2009.
12. Subrata Dasgupta, *Twilight of the Bengal Renaissance: R.K. Dasgupta and His Quest for a World Mind*, Dey's Publishing, Kolkata (Calcutta), India, 2005.
13. Subrata Dasgupta, *The Bengal Renaissance: Identity and Creativity from Rammohun Roy to Rabindranath Tagore*. Permanent Black, New Delhi, India, 2007. Paperback, 2009.
14. Subrata Dasgupta, *Awakening: The Story of the Bengal Renaissance*, Random House India, Noida, India, 2010. Paperback 2011. **{ Longlisted for Vodafone Crossword Literary Prize, Nonfiction, 2011} {French translation forthcoming}**
15. Subrata Dasgupta, *The Renaissance Considered as a Creative Phenomenon: Explorations in Cognitive History*. Routledge, London, 2022

#### **Books: Memoirs**

16. Subrata Dasgupta, *Salaam Stanley Matthews*. Granta Books, London, UK, 2006.

#### **Books: Novels**

17. Subrata Dasgupta, *Three Times a Minority*, Writers Workshop, Kolkata (Calcutta), India, 2003.
18. Subrata Dasgupta, *The Golden Jubilee*, Amaryllis, Bhopal, India, 2013.
19. Subrata Dasgupta, *Voice of the Rain Season*, Fingerprint Publishing, Delhi, India, 2018.

#### **Articles & Papers**

##### **Book Chapters: Computer Science and Design Theory**

1. Subrata Dasgupta, "Computer Design and Description Languages", *Advances in Computers, Volume 21* (M.C. Yovits, ed.), Academic Press, New York, USA, 1982, pp 91-155.
2. Subrata Dasgupta, "Principles of Firmware Verification", *Microprogramming and Firmware Verification* (S. Habib, ed.), Van Nostrand-Rheinhold, New York, USA, 1988, pp 433-482.
3. Subrata Dasgupta & Bruce D. Shriver, "Developments in Firmware Engineering", *Advances in Computers, Volume 24* (M.C. Yovits, ed.), Academic Press, New York, USA, 1985, pp 101-176.
4. Subrata Dasgupta, "The Structure of Design Processes", *Advances in Computers, Volume 28* (M.C. Yovits, ed.), Academic Press, New York, 1989, pp 1-67.
5. Subrata Dasgupta, "Computer Architecture", *Encyclopedia of Physical Sciences and Technology 1990 Yearbook*, Academic Press, New York, 1990, pp 153-162.
6. Subrata Dasgupta, "Computer Architecture", *Encyclopedia of Physical Sciences and Technology, Volume 4* (2<sup>nd</sup> edition), Academic Press, New York, 1992, pp 123-133.
7. Subrata Dasgupta, "Computational Creativity", *Encyclopedia of Creativity*, (M. Runco, ed.). Elsevier, New York, 2019.

##### **Book Chapters: Creativity Studies, Cognitive History, Sciences of the Artificial**

8. Subrata Dasgupta, "Creativity, Invention and the Computational Metaphor: Prolegomenon to a Case Study", *Creativity and Artificial Intelligence* (T. Dartnell, ed.), Kluwer Academic Press, Boston, MA, 1994, pp 309-324.

9. Subrata Dasgupta, "Innovation in the Social Sciences: Herbert Simon and the Birth of a Scientific Tradition", *International Handbook on Innovation* (L. Shavinina, ed.), Elsevier Science, London, 2003, pp 458-470.
10. Carmen Comeaux, Janet Elias & Subrata Dasgupta, "Creativity and the Cognitive Case Study Method", *Progress in Cognitive Psychology Research*, Nova Science Publishers, New York, 2006, pp 105-125.
11. Subrata Dasgupta, "From Sciences of the Artificial to Cognitive History" in R. Frantz & L. Marsh (ed.), *Minds, Models and Milieux: Commemorating the Centenary of Herbert Simon's Birth*. Palgrave Macmillan, Basingstoke, UK, 2015.

**Papers : Computer Science & Design Theory**

12. L. Wayne Jackson & Subrata Dasgupta, "The Identification of Parallel Microoperations", *Information Processing Letters*, 2,6, April 1974, pp 180-184.
13. John Tartar & Subrata Dasgupta, "A Probabilistic Model for the Evaluation of Microprogram Performance", *Proc. 7<sup>th</sup> Annual Workshop on Microprogramming*, Palo Alto, CA, Sept. 1974, pp 1-8.
14. Subrata Dasgupta & John Tartar, "On the Minimization of Control Memories", *Information Processing Letters*, 3, 3, Jan. 1975, pp 71-74.
15. Subrata Dasgupta & John Tartar, "The Identification of Maximal Parallelism in Straight Line Microprograms", *IEEE Trans. Computers*, C-25, 10, Oct. 1976, pp 986-992.
16. Subrata Dasgupta, "Microprogrammable Computer Architectures", *Proc. 3<sup>rd</sup> International Symposium on Computers, Electronics and Control*, Calgary, Alberta, Oct. 1976.
17. Subrata Dasgupta, "The Design of Some Language Constructs for Horizontal Microprogramming", *Proc. 4<sup>th</sup> Annual International Symposium on Computer Architecture*, Silver Springs, MD, March 1977, pp 10-16.
18. Subrata Dasgupta, "Parallelism in Loop-Free Microprograms", *Information Processing 77* (Proc. IFIP Congress 1977), B. Gilchrist (ed.), North-Holland, Amsterdam, 1977, pp 745-750.
19. Subrata Dasgupta, "Comment on the Identification of Maximal Parallelism in Straight-Line Microprograms", *IEEE Trans. Computers*, C-27, 3, March 1978, pp 285-286.
20. Subrata Dasgupta, "Towards a Microprogramming Language Schema", *Proc. 11<sup>th</sup> Annual Workshop on Microprogramming*, Pacific Grove, CA, Nov. 1978, pp 144-153.
21. Subrata Dasgupta, "The Organization of Microprogram Stores", *ACM Computing Surveys*, 11, 1, March 1979, pp 40-65. [Reprinted in E. Mallach & N. Sondak (ed.), *Advances in Microprogramming*, Artech House, 1983.]



22. Subrata Dasgupta, "Some Aspects of High Level Microprogramming", *ACM Computing Surveys*, 12, 3, Sept. 1980, pp 295-342. [Reprinted in V. Milutinovic (ed.), *Tutorial on Microprogramming and Firmware Engineering*, IEEE Computer Society Press, 1989.][Translated and reprinted in the Japanese journal *BIT*, 1981.]
23. Subrata Dasgupta, "Some Implications of Programming Methodology for Microprogramming Language Design", *Microprogramming, Firmware and Restructurable Hardware* (G. Chroust & J. Mulbacher, ed.), North-Holland, Amsterdam, 1980.
24. Subrata Dasgupta, "S\*A: A Language for the Description of Computer Architectures", *Proc. 5<sup>th</sup> International Conference on Computer Hardware Description Languages and their Applications* (R.W. Hartenstein, ed.), North-Holland, Amsterdam, 1981.
25. Alynn Klassen & Subrata Dasgupta, "S\*(QM-1): An Instantiation of the High Level Microprogramming Language Schema S\* for the Nanodata QM-1", *Proc. 14<sup>th</sup> Annual Microprogramming Workshop*, November 1981.
26. Subrata Dasgupta, "On the Use of a Family of Languages for the Design of Microprogrammed Computer Architectures", *Proc. International Conf. on Communications, Systems and Circuits*, Kolkata, India, December 1981.
27. Subrata Dasgupta & Marius Olafsson, "Towards a Family of Languages for the Design and Implementation of Machine Architectures", *Proc. 9<sup>th</sup> Annual International Symposium on Computer Architecture*, Austin, Texas, April 1982, pp 158-172. [Reprinted in *Advanced Computer Architecture* (D.P. Agrawal, ed.), IEEE Computer Society Press.]
28. Subrata Dasgupta, "On 'Style' in Computer Architecture and Its Role in the Design Process", *Proc. International Workshop on Computer Systems Organization*, New Orleans, Louisiana, March 1983.
29. Joseph Linn, Bruce D. Shriver & Subrata Dasgupta, "CODES: A Retargetable System for Horizontal Microarchitectures", *Proc. International Workshop on Computer Systems Organization*, New Orleans, Louisiana, March 1983.
30. Subrata Dasgupta, "On the Verification of Computer Architectures Using an Architecture Description Language", *Proc. 10<sup>th</sup> Annual International Symposium on Computer Architecture*, IEEE Computer Society Press, June 1993.
31. Alan Wagner & Subrata Dasgupta, "Axiomatic Proof Rules for a Machine Specific Microprogramming Language", *Proc. 16<sup>th</sup> Annual Workshop on Microprogramming*, IEEE Computer Society Press, New York, 1983.
32. Subrata Dasgupta, "A Model of Clocked Micro-Architectures for Firmware Engineering and Design Automation Applications", *Proc. 17<sup>th</sup> Annual Workshop on Microprogramming*, IEEE Computer Society Press, New York, 1984.

33. Subrata Dasgupta & Alan Wagner, "The Use of Hoare Logic in the Verification of Horizontal Microprograms", *International J. of Computer & Information Sciences*, 13, 6, Dec. 1984, pp 461-490.
34. Prasenjit Biswas & Subrata Dasgupta, "Architectural Support for Variable Addressing Mechanisms in Block-Structured Languages", *International J. of Computer & Information Sciences*, 14,1, Feb. 1985.
35. Subrata Dasgupta, "The Role of Hardware Description Languages in Microprogramming Systems", *Computer*, 18, 2, Feb. 1985.
36. Subrata Dasgupta & Juha Heinanen, "On the Axiomatic Specification of Computer Architectures", *Computer Hardware Description Languages and their Applications*, North-Holland, Amsterdam, 1985.
37. Subrata Dasgupta, Philip A. Wilsey & Juha Heinanen, "Axiomatic Specifications in Firmware Development Systems", *IEEE Software*, 4, 4, July 1986.
38. Subrata Dasgupta & Ulises Aguero, "On the Plausibility of Architectural Design", *Computer Hardware Description Languages and their Applications*, North-Holland, Amsterdam, April 1987.
39. Ulises Aguero & Subrata Dasgupta, "A Plausibility-Driven Approach to Computer Architecture Design", *Communications of the ACM*, 30, 11, Nov. 1987.
40. Alan Hooton, Ulises Aguero & Subrata Dasgupta, "An Exercise in Plausibility-Driven Design", *Computer*, 21, 7, July 1988.
41. Philip A. Wilsey & Subrata Dasgupta, "A Formal Model of Computer Architectures for Computer System Design Environments", *Design Methodologies for VLSI and Computer Architecture* (IFIP TC-10 Conference), North-Holland, Amsterdam, 1989.
42. Philip A. Wilsey & Subrata Dasgupta, "Functional and Operational Specifications of Computer Architectures", *Computer Hardware Description Languages and their Applications*, North-Holland, Amsterdam, 1989.
43. Lois M. Delcambre, Steve Landry & Subrata Dasgupta, "A Knowledge-Based Framework for an Automated Engineering Design System", *Proc. Eastern Multi-Conference* (Society for Computer Simulation), Nashville, Tennessee, April 1990.
44. Philip A. Wilsey & Subrata Dasgupta, "A Formal Model of Computer Architecture for Digital System Design Environments", *IEEE Trans. on Computer Aided Design*, 9, 5, April 1990, 473-486.
45. Subrata Dasgupta, "A Hierarchical Taxonomic System for Computer Architectures", *Computer*, 23,3, March 1990, pp 64-74.
46. Sukesh Patel & Subrata Dasgupta, "Automatic Belief Revision in a Plausibility-Driven Design Environment", *IEEE Trans. on Systems, Man & Cybernetics*, 21, 5, Sept/Oct 1991, pp 993-951.

47. Sukesh Patel & Subrata Dasgupta, "Automatic Belief Revision in Plausibility-Driven Design Processes", *Artificial Intelligence in Design '91* (J.S. Gero, ed.), Butterworth-Heinemann, Oxford, 1991, pp 447-466.
48. Donna Schwartz, Steve Landry, Lois Delcambre, Subrata Dasgupta, R. Adrieux & E. Metzger, "AutoCRAT: An Automated Design Tool for Constraint Refinement", *Artificial Intelligence and Simulation, Proc. Society for Simulation Multi-Conference on AI & Simulation*, New Orleans, Louisiana, April 1991.
49. Subrata Dasgupta, "Understanding Design: AI as an Explanatory Paradigm", *Proc. 3<sup>rd</sup> Workshop on Research Directions on Artificial Intelligence in Design*, Los Angeles, California, Jan. 1992.
50. Subrata Dasgupta, "Understanding Design: Artificial Intelligence as an Explanatory Paradigm", *Proc. Indian Academy of Sciences, Engineering Sciences*, 19,1, Feb 1994, pp 5-21.

**Papers: Creativity Studies, Cognitive History, Sciences of the Artificial**

51. Subrata Dasgupta, "Two Laws of Design", *Intelligent Systems Engineering*, 1,2, Winter 1992, pp 146-156.
52. Subrata Dasgupta, "The Invention of Microprogramming as a Creative Process", *AAAI Spring Symposium Workshop on AI and Creativity*, Stanford, California, March 1993.
53. Subrata Dasgupta, "Testing the Hypothesis Law of Design: The Case of the Britannia Bridge", *Research in Engineering Design*, 6,1, 1994.
54. Subrata Dasgupta, "The Origins and Nature of the Cognitive Paradigm". *Indian J. of Physiology & Pharmacology*, 44 (4), 2000, pp 379-391.
55. Subrata Dasgupta, "Response to 'Technological Thought is Design's Operative Method' by Tom F. Peters", *Perspecta 31. Yale Architectural Journal*, 2000, p. 141.
56. Subrata Dasgupta, "Multidisciplinary Creativity: The Case of Herbert A. Simon", *Cognitive Science*, 27,5, Sept/Oct 2003.
57. Subrata Dasgupta, "Is Creativity a Darwinian Process?", *Creativity Research Journal*, 16, 4, 2004, pp 403-413.
58. Subrata Dasgupta, "Cognitive Style in Creative Work: The Case of the Painter George Rodrigue", *PsyArt : An Online Journal for the Psychological Study of the Arts*, [http://www.clas.ufl.edu/ipasa/journal/2005\\_dasgupta01.shtml](http://www.clas.ufl.edu/ipasa/journal/2005_dasgupta01.shtml).
59. Janet Elias & Subrata Dasgupta, "A Cognitive Model for the Engineering Design Mind", *Studying Designers '05* (J.S. Gero & N. Bonnardel, ed.), Key Centre of Design Computing & Cognition, University of Sidney, 2005, pp 101-116.

60. Naresh Vempala & Subrata Dasgupta, "A Computational Model of the Music of Stevie Ray Vaughan", *Proc. 6<sup>th</sup> Creativity and Cognition Conference*, Washington, D.C., 2007.
61. Subrata Dasgupta, "Shedding Computational Light on Human Creativity", *Perspectives on Science*, 16,2, 2008, pp 121-136.
62. Subrata Dasgupta, "On the Blind-Mindedness of Creative Thought: Comment on 'Creative Thoughts as Blind-Variation and Selective Retention. Combinatorial Models of Exceptional Creativity' by Dean Keith Simonton", *Physics of Life Reviews*, 7, 2010, pp 188-189.
63. Subrata Dasgupta, "Contesting (Simonton's) Blind Variation, Selective Retention Theory of Creativity", *Creativity Research Journal*, 23,12, 2011, pp 166-182
64. Subrata Dasgupta, "The Historicity of Creativity", *Creativity, Innovation and Complexity in Science* (W. Gonzales, ed.), Netbiblio, A Coruña, Spain, 2012.
65. Subrata Dasgupta, "The Complexity of Creativity: *Les Demoiselles d'Avignon* as a Cognitive-Historical Laboratory", *Creativity Research Journal*, 31, 4, pp 377-394, 2019.

**Papers: History and Philosophy of Science, Design and Technology**

66. Subrata Dasgupta, "Forgotten History: Sir Jagadis Bose and the Origins of Radio", *Transactions of the Newcomen Society*, 67, 1996, pp 5-65.
67. Subrata Dasgupta, "Technology and Complexity", *Philosophica*, 59, 1, 1997, pp 113-140.
68. Subrata Dasgupta, "Jagadis Bose, Augustus Waller and the Discovery of 'Vegetable Electricity'", *Notes & Records of the Royal Society*, 52, 2, 1998, pp 307-322.
69. Subrata Dasgupta, "Jagadis Bose as a Creative Being", *Physics News (Bulletin of the Indian Physics Association)*, 39, 4, pp 95-102.
70. Subrata Dasgupta, "Epistemic Complexity and the Sciences of the Artificial". In W. Gonzales (ed.), 2013. *Philosophy of the Sciences of the Artificial*. Berlin: Springer.
71. Subrata Dasgupta, "Science Studies sans Science: Two Cautionary Postcolonial Tales", *Social Scientist*, 42, 5-6, May-June 2014, pp 43-61.\
72. Subrata Dasgupta, "Disentangling Data, Information and Knowledge", *Big Data and Information Analytics*, 1, 4, 2016, 377-389.
73. Subrata Dasgupta, "Judging Creativity: The Case of the Early Jagadis Bose", *Indian Journal of History of Science*, 53, 4, pp 60-68, 2018.
74. Subrata Dasgupta, "Whiggism, Creativity and the Historiography of Technoscience", *Indian Journal of History of Science*, 56, pp 28-36, 2021.

75. Subrata Dasgupta, "Jagadis Bose's Panvitalism as Intellectual History", *Indian Journal of History of Science*, in press.

**Papers & Articles: Miscellaneous**

76. Subrata Dasgupta & Robert A. Mueller, "Firmware Engineering: The Interaction of Microprogramming and Firmware Engineering", Guest Editors' Introduction, *IEEE Software*, 4, 4, July 1986.

77. Subrata Dasgupta, "A Defense of Pure Learning", *Teaching and Research in the University* (L. Pyenson, ed.), Center for Louisiana Studies, Publication of the Graduate School, Vol 2, Lafayette, Louisiana, 1996.

78. Subrata Dasgupta, Letter to the Editor, *Computer*, 23, 6, June 1990, p. 6.

79. Subrata Dasgupta, 'Review of *A Prattler's Tale* by Ashok Mitra', *The Book Review*, Feb. 2007.

**Blog Posts.**

80. Subrata Dasgupta, "A Space of One's Own", Random House India Blog, 2010.

81. Subrata Dasgupta, "The Scientist as Historian", OUPBlog, Oxford University Press, 2018.

82. Subrata Dasgupta, "The Dilemma of 'Progress' in Science, OUPBlog, Oxford University Press, 2018.

**MEDIA INTERVIEWS OF/FEATURED MEDIA ARTICLES ON SUBRATA DASGUPTA**

1. Interview, BBC Radio 4: *Midweek* National Program, London, UK, March 2006.
2. Interview, BBC Radio 5: *In the Night* National Program, London, UK, March 2006.
3. Interview, BBC Radio 5: National Sports Program, London, UK, March 2006.
4. Interview, BBC Radio Nottingham: Afternoon Program, Nottingham, UK, March 2006.
5. Interview, BBC Radio Derby: *Mid Morning* Program, Derby, UK, March 2006.
6. Interview, BBC Radio Manchester: Asian Program, Manchester, UK, April 2006.
7. Interview by Matthew Evans, *Big Issue*, London, UK, January 2006.
8. Featured article by Simon Burch, *Derby Telegraph*, Derby, UK, March 2006.
9. Featured article by Anton Rippon, *Derby Telegraph*, Derby, UK, March 2006.
10. Featured article by Anusuya Basu, *The Telegraph*, Calcutta, India, January 2007.
11. Featured article, Express Feature Service, *Indian Express*, New Delhi, India, January 2007.
12. Featured article by Kajari Bhattacharya, *The Statesman*, Calcutta, India, February 2007.

13. Featured Op-Ed article by Ramachandra Guha, *The Telegraph*, Calcutta, India, October 2007.
14. Featured article by Peter Siddon, *Bygone Derbyshire*, Derby, UK, January 2008.
15. Featured article by Ramón Loueriro, *La Viz de Galicia*, Galicia, Spain, March 2010
16. Article quoting Subrata Dasgupta by Erene Stergiopoulos, *The Varsity*, Toronto, Canada, January, 2011.

#### **REVIEWS OF SUBRATA DASGUPTA'S BOOKS**

*ACM Computing Reviews (USA), IEEE Computer (USA), IEEE Annals of the History of Computing (USA), IEEE Expert (USA), Choice (USA), Technology and Culture (USA), Science Books and Films (USA), Science News (USA), Information & Computer Science (USA), SIGART Bulletin (USA), Journal of Robotic & Intelligent Systems (USA), ISIS (USA), American Historical Review (USA), Communications of the ACM (USA), Computing in Science and Engineering (USA).*

*New Scientist (UK) , The Independent (UK), The Observer (UK), The Guardian (UK), Scotland on Sunday (UK), Times Literary Supplement (UK), Cultural Geographies (UK), Oldie (UK), Derby Telegraph (UK), New World (UK), Asian Review of Books (UK), The Morning Star (UK), The Big Issue (UK), Calabash (UK), Asian News (UK). Journal of the British Society for the History of Mathematics (UK), Resurrection (UK).*

*Languages of Design (Europe), Robotica (Europe), Journal of Asian Studies (Europe).*

*New Zealand Journal of Asian Studies (New Zealand).*

*India Today (India), Outlook India (India), Current Science (India), The Telegraph (India), The Statesman (India), The Hindu (India), Biblio (India), Sunday Guardian (India), Indian Express (India), The Book Review (India), Indian Journal of History of Science (India), Indian Review of Books (India), Indian Economic and Social History Review (India), Deccan Herald (India), Desh (India), Chaturanga (India), Ananda Bazaar Patrika (India), Science, Technology & Society (India).*

*Various Internet Websites and Blogs.*

#### **CONFERENCE, PROFESSIONAL, BOARD, ADVISORY & CONSULTING ACTIVITIES**

1. Session chairman, 15<sup>th</sup> Annual Workshop on Microprogramming, Palo Alto, CA, USA, 1982.
2. Program chairman, 16<sup>th</sup> Annual Workshop on Microprogramming, Hershey, PA, USA, 1983.
3. Track chairman, Digital Systems Description, Design and Synthesis Techniques, ACM Computer Science Conference, New Orleans, LA, USA, 1985.

4. Session chairman, 6<sup>th</sup> International (IFIP) Conference on Computer Hardware Description Languages and their Applications, Pittsburgh, PA, USA, 1983.
5. Session chairman, 7<sup>th</sup> International (IFIP) Conference on Computer Hardware Description Languages and their Applications, Tokyo, Japan, 1985.
6. Session chairman, 8<sup>th</sup> International (IFIP) Conference on Computer Hardware Description Languages and their Applications, Amsterdam, The Netherlands, 1987.
7. Session chairman, 9<sup>th</sup> International (IFIP) Conference on Computer Hardware Description Languages and their Applications, Washington, DC, USA, 1989.
8. Member, program committee, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup> International (IFIP) Conferences on Computer Hardware Description Languages and their Applications (1983, 1985, 1987, 1989).
9. Member, program committee, 18<sup>th</sup> Annual Workshop on Microprogramming, Pacific Grove, CA, USA, 1985.
10. Member, program committee, IEEE Workshop on Languages for Design Automation, Singapore, 1986.
11. Member, program committee, IFIP Workshop on Computer-Aided Verification, Rutgers, NJ, USA, 1990.
12. Member, program committee, IFIP Workshop on Formal Design Methods for Computer-Aided Design, Tallin, Estonia, 1993.
13. Member, International Board of Advisors, 2<sup>nd</sup> International Conference on Artificial Intelligence in Design, Pittsburgh, PA, 1992.
14. Member, International Board of Advisors, 2<sup>nd</sup> International Round Table Conference on Computational Models of Creative Design, Heron Island, Queensland, Australia, 1992.
15. Member, International Board of Advisors, IEEE International Conference on Systems, Man & Cybernetics, Barcelona, Spain, 1994.
16. Member, IFIP Working Group 10.2 (Digital System Description & Design Tools) of the Technical Committee TC-10, International Federation for Information Processing (IFIP), 1980-1989.
17. Board member, IEEE Technical Committee on Microprogramming, 1981-1985; Special programs chairman 1981; Vice-chairman, 1982-1985.
18. Scientific advisor, ESPIRIT (Europe)-Sponsored Microprogram Verification Project, Technische Hochschule Aachen, Germany, 1983-1987.
19. Consultant, RCA Corporation Advanced Technology Laboratories, 1984.
20. Board of advisors member, Department of Electrical & Computer Engineering, University of Cincinnati, Cincinnati, OH, USA, 1990-1992.

21. Consultant, Dowty Maritime Command & Control Systems, London, UK, 1992-1993.
22. Board of directors member, International Society for Computational Modelling of Creative Processes, 1994-1996.
23. Consultant, United Nations Development Program (UNDP), Bangalore, India, 1991.