D. R. Bhaskar

Name:
Data Ram Bhaskar

Father's Name:
Late Sri Udal Singh Bhaskar

Date of birth:
July 01, 1951

Address for Communication: Department of Electrical Engineering, Delhi Technological University, Shahbad Daulatpur, Bawana Road, New Delhi- 110042.

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Education:

- B.Sc. degree from Agra University, 1975
- B. Tech. degree from Indian Institute of Technology (IIT), Kanpur in Electrical Engineering, 1979
- M. Tech. degree from IIT, Delhi in Electrical Engineering, 1983
- Ph.D. in Electronics and Communication Engineering from University of Delhi, Delhi, 1994

Professional and Academic Experience and Positions held:

36 years professional and academic experience, the details of which are as follows:

- **Assistant Engineer** June 1981-January 1984 Delhi Electric Supply Undertaking (DESU).
- **Lecturer**, 1984-1990 at the Electrical Engineering Department of Delhi College of Engineering, Kashmere Gate, Delhi-110006.
- **Lecturer**, Senior Scale 1990-1995 at the Electrical Engineering Department of Delhi College of Engineering, Kashmere Gate, Delhi-110006.
- **Reader** July 1995- December 2001, Electronics and Communication Engineering (ECE) Department of Faculty of Engineering and Technology, Jamia Millia Islamia (JMI), Jamia Nagar, New Delhi-110025
- **Professor,** January 2002–June 2016, Electronics and Communication Engineering Department of Faculty of Engineering and Technology, JMI , Jamia Nagar , New Delhi-110025
- **Professor, August 2016-till date,** Department of Electrical Engineering, Delhi Technological University, Shahbad Daulatpur, Bawana Road, New Delhi- 110042.

Positions held at Jamia Millia Islamia:

- Head, Department of Electronics and Communication Engineering, under the rotational headship system prevalent at the University during 2002-2005
- VC's nominee in Selection Committees for various teaching and non-teaching posts (since 1998 –June 2016)
- Member, BOS, Department of Computer Science, Jamia Millia Islamia during 2004-2007.
- Superintendent for B.Tech and B.E. Entrance Examinations (on several occasions since 1998)
- Chairman, Sub-Purchase Committee, Jamia Millia Islamia, New Delhi
- Faculty-in-charge of Advanced Analog Signal Processing Laboratory and Analog Signal Processing and Filter Design Laboratory.

Experience of Curriculum Development:

- Had been involved in revising the syllabus of the course Circuit and Systems for the B.E. degree of Delhi University {for DCE and NSIT (formerly D.I.T.)}
- At DCE, involved in revising the syllabi of Instrumentation and Digital Electronics courses.
- At Jamia Millia Islamia, involved in formulating three new courses on Analog Integrated Circuits, Analog Signal Processing and Filter Design and Advanced Analog Signal Processing' for B.Tech. (ECE) students.

Laboratories Developed:

- At NSIT, I had been involved with Sh. P. R. Chadha in developing the Electronics Laboratories and with Mr. M.P.S. Bhatia in developing the Instrumentation Laboratory.
- At DCE, the following Labs were developed for undergraduate students exclusively by me:

(i) Analog Integrated Circuits Lab.
(ii) Instrumentation Lab.
(iii) Bipolar and MOS Analog Integrated Circuits Lab.

- At JMI, the following labs have been developed exclusively by me.

(i) Circuit Simulation Lab.
(ii) Analog Integrated Circuits Lab.
(iii) Analog Signal Processing and Filter Design Lab.
(iv) Advanced Analog Signal Processing Lab.

Details of Academic / Professional / Administrative Positions held for other Universities / AICTE / UGC / UPSC / Ministry of IT etc. :

- Member, Academic Council, Guru Jambheshwar University (GJU), Hisar (Haryana) during 2002-2004
- Member, Board of Studies (BOS), Department of Electronics and Communication Engineering, GJU, Hisar (Haryana) during 2003-2006.
- Member, Purchase Committee, Jawaharlal Nehru University (School of Computer Sciences), Delhi during 2003-2006, 2011- 2014.
- Member, Board of Studies (BOS), Department of Electronics Engineering, F/O Engineering and Technology, Aligarh Muslim University, Aligarh(U.P.) 2010-2014
- At IGNOU, New Delhi (i) VCs nominee for the post of Hardware Engineer and Software Engineer and (ii) VCs nominee for the DPC in respect of group 'A' (non-academic) and group 'C' (non-academic)
- At GJU, Hisar (Haryana): (i)VCs nominee for the post of Lecturers and (ii) Expert member for the Posts of Professor and Assistant Professors
- At Guru Govind Singh Indraprastha University (GGSIP), Delhi (i) Expert member for the DPC in respect of group 'A' (non-academic) (ii) Expert member for CAS in respect of ECE and CSE. Expert member for the posts of Assistant Professor, Associate Professor and Professor for ECE department.
- At UGC, New Delhi: (i) Observer for Professors under CAS (ii) Expert member for various committees (ii) Observer for NET examination at various occasions (iii) UGC nominee on the Board of Governors of NIT, Jamshedpur.

- At AICTE, New Delhi: (i) Expert member for appraisal committee (ii) Expert member for hearing committee and (iii) Expert member for NBA visits.
- At UPSC, New Delhi: Expert member in selection committees for various teaching and non-teaching posts.
- At Electronics Niketan, 6 CGO Complex, New Delhi (Ministry of IT): Expert member in selection committees for Scientist D/E/F and Director.
- Acted as a Reviewer for revised B. E and M.E Programs of University of Delhi
- Acted/Acting as Ph. D Examiner: for University of Delhi, UP Technical University, Guru Nanak Dev University, Amritsar (Punjab), JNTU, Hyderabad, MNNIT, Allahabad, University of Allahabad and UIT RGVP Bhopal.
- At Devi Ahilya Vishwavidyalaya, R.N.Marg, Indore (M.P.), Chancellor's (Government of M.P.) nominee for the selection of Professor (under CAS), Reader, and Lecturers.
- At Bhagat Phool Singh Mahila Vishwavidyalaya Khanpur Kalan(Sonipat), Haryana, Member P.G.BOS in the School of Engineering and Sciences.
- Member Board of Management of Gautam Buddha University, Greater Noida (U.P.) w.e.f. 08 July, 2014 for a period of three years.
- Member Faculty of Technology, under the provisions of Statute 9(3)(vii) of the University of Delhi, Delhi w.e.f. January, 2014 for a period of three years.
- Member / Member- Co-ordinator /Chairperson of NAAC, Bangalore.
- Member Board of Governors, G.B. Pant Engineering College, Ghurdauri, Pauri-Garhwal (Uttarakhand) w.e.f. January, 2016for a period of three years.

Research Experience and Publications:

Over **29 years** research experience.

From some of my research in the above areas, I have authored and co-authored **85 research** papers all in refereed International (which includes IEEE (USA), IEE (UK) and other International Journals of repute). **Four Research Monographs (3 Springer and 1 IET)**, **four book chapters (Springer)** and **seven** international conference papers. Almost all the papers have been widely referred by other researchers working in the same areas. Some papers have also been referred in recent books such as P. V. Anandamohan, 'Current mode VLSI Analog Filters', Birkhauser Boston (USA), 2003.

As per Google Scholar total citations received are **1285** with an h-index of **26** and i10- index **45**

Ph. D Guidance:

- Murlidhar Kulkarni (Ph.D. awarded in 2006)
- Dinesh Prasad (Ph.D. awarded in 2010)
- Kasim K. Abdalla (Ph.D. awarded in 2011)
- K. L. Pushkar (Ph.D. awarded in 2014)
- Mayank Srivastava (Ph.D. awarded in 2015)
- Ashish Gupta (Ph.D. awarded in 2015)
- Ghanshyam Singh (Ph.D. awarded in 2016)
- Manish Gupta (Ph.D. awarded in 2016)
- Ram Bhagat ((Ph.D. awarded in 2020)
- Manoj Kumar (Ph.D. awarded in 2021)
- Ajishek Raj (Ph.D. awarded in 2021)

Current Teaching and Research Interests:

Current teaching and research interests are in the areas of
- Bipolar and MOS Analog Integrated Circuits
- Analog Signal Processing and Filter Design
- Current-Mode Circuits and Signal Processing

- Electronic Instrumentation
- Communication Systems
- Microelectronics
- Circuits and Systems
- Signals and Systems

Reviewer-ship of International Journals:

Have acted/currently acting as a **Reviewer** (by invitation from the Editors) for the following International Journals:

- IEEE Transactions on Circuits and Systems I: Fundamental Theory and Applications (USA)
- IEEE Transactions on Instrumentation and Measurement (USA)
- IEEE Transactions on Circuits and Systems II: Express Briefs (USA)
- IET Electronics Letters (UK)
- Microelectronics Journal (UK)
- International Journal of Electronics (UK)
- Circuits, Systems and Signal Processing (USA)
- Analog Integrated Circuits and Signal Processing (USA)
- WSEAS Transactions on Electronics (USA)
- Journal of Circuits, Systems and Computers (USA)
- International Journal of Electronics and Communications(AEU) (Germany)
- ETRI Journal , Daejeon (Republic of Korea)
- Radioengineering (Czech Republic)
- Indian Journal of Pure & Applied Physics
- Turkish Journal of Electrical Engineering & Computer Sciences (Turkey)
- Circuits and Systems (USA)
- Active and Passive Electronic Components (USA)

Editorship:

Editor of IETE Journal of Education, India

Membership of Professional Societies:

(i) Senior Member of IEEE (USA) : Member # 80509716
(ii) Fellow IETE (INDIA) : Member # F- 215163
(iii) Fellow IE (INDIA) : Member # F- 118843-3
(iv) Chartered Engineer : Member # F- 118843-3
(v) Life Member of ISTE (INDIA) : Member # LM 56239

Biographical Listing:

Biography is included in

- Several editions of Marquis Who's Who in the World (USA)
- Marquis Who's Who in Science and Engineering (USA)
- Marquis Who's Who in Asia (USA)

Research Publications

I. Papers published in Refereed International Journals

1. R. Senani, M. P. Tripathi, **D. R. Bhaskar** and A. K. Banerjee, 'Systematic generation of OTA-C Sinusoidal Oscillators', *Electronics Letters, IEE (UK),* vol. 26, no. 18, pp. 1457-1459, August 1990; also see *ibid*, vol. 27, no. 1, pp. 100-101, January 1991.
2. R. Senani, A. K. Banerjee, M. P. Tripathi and **D. R. Bhaskar**, 'Some simple Techniques of generating OTA-C Sinusoidal Oscillators', FREQUENZ: Journal of Telecommunications (Germany), vol.45, no. 7-8, pp. 177-181, July/August 1991.
3. R. Senani and **D. R. Bhaskar**, 'Single-op-amp Sinusoidal oscillators suitable for generation of Very Low Frequencies', IEEE Trans. on Instrumentation and Measurement (USA), vol. 40, no. 4, pp. 777-779, August 1991.
4. R. Senani and **D. R. Bhaskar**, 'Realization of Voltage-controlled Impedances', IEEE Trans. on Circuits and Systems (USA), vol. 38, no. 9, pp. 1081-1086, September 1991.
5. R. Senani and **D. R. Bhaskar**, 'A simple configuration for realizing Voltage-Controlled Impedances', *IEEE Trans. on Circuits and Systems (USA),* vol. 39, no. 1, pp. 52-59, January 1992.
6. R. Senani and **D. R. Bhaskar**, 'Correction to: Realization of Voltage-controlled Impedances', IEEE Trans. On Circuits and Systems (USA), vol. 39, no. 2, p. 162, February 1992.
7. **D. R. Bhaskar** and R. Senani, 'New Current Conveyor based Single resistance controlled/voltage-controlled oscillator employing grounded capacitors', *Electronics Letters*, IEE (UK), vol. 29, no. 7, pp. 612-614, April 1993.
8. **D. R. Bhaskar**, M. P. Tripathi and R. Senani, 'A class of three-OTA-two-Capacitor Oscillators with non-interacting controls', International Journal of Electronics (UK), vol. 74, no. 3, pp. 459-463, March 1993.
9. R. Senani, **D. R. Bhaskar** and M. P. Tripathi, 'On the realization of linear Sinusoidal VCOs', International Journal of Electronics (UK), vol. 74, no. 5, pp. 727-733, May 1993.
10. **D. R. Bhaskar**, M. P. Tripathi and R. Senani, 'Systematic derivation of all possible Canonic OTA-C Sinusoidal Oscillators', Journal of the Franklin Institute (USA), vol. 330, no. 5, pp. 885-903, September 1993.
11. **D. R. Bhaskar** and R. Senani, 'New linearly tunable CMOS-compatible OTA-C oscillators with non-interacting controls', *Microelectronics Journal (UK),* vol. 25, pp. 115-123, April 1994.
12. R. Senani and **D. R. Bhaskar**, 'Versatile Voltage-Controlled Impedance Configuration', *IEE Proceedings Part G: Circuits, Devices and Systems (UK*), vol. 141, no.5, pp. 414-416, October 1994.
13. R. Senani and **D. R. Bhaskar**, 'New active-R Sinusoidal VCOs with linear tuning laws', *International Journal of Electronics (UK),* vol. 80, no.1, pp. 57-61, January 1996.
14. **D. R. Bhaskar**, 'Single Resistance Controlled Sinusoidal Oscillator Using Single FTFN', *Electronics Letters, IEE (UK),* vol. 35, no. 3, p. 190, February 1999.
15. **D. R. Bhaskar**, V. K. Sharma, M. Monis and S. M. I. Rizvi, 'New Current Mode Universal Biquad Filter', *Microelectronics Journal (UK),* vol. 30, no. 9, pp 837-839, September 1999.
16. **D. R. Bhaskar** and M. P. Tripathi, 'Realisation of novel linear Sinusoidal VCOs', *Analog Integrated Circuits and Signal Processing (USA),* vol. 24, no. 3, pp. 263-267, September, 2000.
17. **D. R. Bhaskar**, 'Grounded -capacitor SRCO using only one PFTFN', *Electronics Letters, IEE (UK),* vol. 38, no. 20, pp. 1156-1157, September, 2002.
18. **D. R. Bhaskar**, 'Realization of Second-order Sinusoidal Oscillator/Filters with Non-Interacting Controls using CFAs', *FREQUENZ: Journal of Telecommunications (Germany),* vol. 57, no. 1/2 pp. 12-14, January/February, 2003.
19. **D. R. Bhaskar**, Dinesh Prasad and S. A. Imam, 'Grounded - Capacitor SRCOs realized through a general scheme', *FREQUENZ: Journal of Telecommunications (Germany),* vol. 58, no. 7/8, pp. 175-177, July / August 2004.

20. R. Senani, V. K. Singh, A. K. Singh and **D. R. Bhaskar**, 'Novel electronically controllable current-mode universal biquad filter', *IEICE Electronics Express (Japan),* vol. 1, no. 14, pp. 410-415, October 25, 2004.
21. **D. R. Bhaskar**, A. K. Singh, R. K. Sharma and R. Senani, 'New OTA-C universal current-mode/ trans-admittance biquads', *IEICE Electronics Express (Japan),* vol. 2, no. 1, pp. 8-13, January 10, 2005.
22. **D. R. Bhaskar** and R. Senani, 'New FTFN-based Grounded-Capacitor SRCO with explicit current-mode output and reduced number of resistors', *International Journal of Electronics and Communications (AEU) (Germany),* vol. 59, no. 1, pp. 48-51, January-February 2005.
23. M. Kulkarni and **D. R. Bhaskar**, 'Performance Analysis of Turbo-Coded Optical CDMA Systems', *Journal of Optical Communications (Germany),* vol. 26, no. 3, pp. 131-137, June 2005
24. R. Senani, V. K. Singh, A. K. Singh and **D. R. Bhaskar**, 'Tunable current-mode universal biquads employing only three MOCCs and all grounded passive elements: additional new realizations', *FREQUENZ: Journal of RF- Engineering and Telecommunications (Germany),* vol. 59, no. 9/10, pp. 220-224, September/October 2005.
25. V. K. Singh, A. K. Singh, **D. R. Bhaskar** and R. Senani, 'Novel mixed-mode universal biquad configuration', *IEICE Electronics Express (Japan),* vol. 2, no. 22, pp. 548-553, November 25, 2005.
26. V. K. Singh, R. K. Sharma, A. K. Singh, **D. R. Bhaskar** and R. Senani, 'Two new canonic single-CFOA oscillators with single resistor controls', *IEEE Trans. on Circuits and Systems II: Express Brief (USA),* vol. 52, no. 12, pp. 860-864, December 2005.
27. M. Kulkarni, R. K. Sinha and **D. R. Bhaskar**, ' System Performance Comparison of Turbo and Trellis Coded Optical CDMA Systems', *International Journal of Information and Communication Engineering,* vol. 3, no. 3, pp .187-192, 2006.
28. S. S. Gupta, R. K. Sharma, **D. R. Bhaskar** and R. Senani, 'Synthesis of Sinusoidal Oscillators with Explicit-Current-Output using Current Feedback Op-Amps', *WSEAS Trans. on Electronics, vol. 3, no. 7, pp. 385-388, July 2006.*
29. V. K. Singh, A. K. Singh, **D. R. Bhaskar** and R. Senani, 'New universal biquads employing CFOAs', *IEEE Trans. on Circuits and Systems II: Express Brief (USA), vol. 53, no. 11, pp. 1299-1303, November 2006.*
30. **D. R. Bhaskar** and R. Senani, 'New CFOA-based Single-element- controlled Sinusoidal Oscillators', *IEEE Trans. on Instrumentation and Measurement (USA),* vol.55, no.6, pp.2014-2021, December 2006.
31. **D. R. Bhaskar**, R. K. Sharma, A. K. Singh and R. Senani, ' New Dual-mode biquads using OTAs', FREQUENZ: Journal of RF- Engineering and Telecommunications (Germany), vol. 60, no. 11/12, pp. 246-252, November /December 2006.
32. **D. R. Bhaskar** and Dinesh Prasad, 'New Current Mode Biquad Filter Using CFOAs', Journal of Active and Passive Electronic Devices (USA), vol. 2, no.4, pp. 293-298, 2007.
33. Dinesh Prasad, **D. R. Bhaskar** and A. K. Singh, 'Realization of Single-Resistance-Controlled Sinusoidal Oscillator: A new application of the CDTA', *WSEAS Trans. on Electronics,* vol.5, no. 6, pp. 257-259, June 2008.
34. R. Senani and **D. R. Bhaskar**, 'Comment Practical voltage / current-controlled grounded resistor with dynamic range extension', IET Circuits Devices Syst.(UK), vol.2, no.5, pp.465-466, October 2008.
35. R. K. Sharma, R. Senani, **D. R. Bhaskar**, A. K. Singh and S. S. Gupta 'Electronically- Controllable floating inductor using operational mirrored Amplifier', Journal of Circuits, Systems, and Computers (USA), vol. 18, no.1, pp. 59-66, February, 2009.
36. S. S. Gupta, **D. R. Bhaskar** and R. Senani, 'New Voltage Controlled Oscillators Using CFOAs', International Journal of Electronics and Communications (AEU) (Germany), vol. 63 no. 3, pp. 209-217, March 2009.
37. S. S. Gupta, **D. R. Bhaskar**, R. Senani and A. K. Singh, 'Inverse active filters employing CFOAs', Electrical Engineering (Archiv fur Elektrotechnik) (Germany), vol.91, no.1, pp.23-26, June 2009.
38. R. Senani, **D. R. Bhaskar** , S. S. Gupta and V. K. Singh, 'A Configuration for Realizing Floating, Linear, Voltage-Controlled Resistance, Inductance and FDNC Elements', International Journal of Circuit Theory and Applications (USA), vol. 37, no. 5, pp. 709-719, June, 2009.
39. Dinesh Prasad, **D. R. Bhaskar** and A. K. Singh, 'Universal Current-mode Biquad Filter using Dual Output Current Differencing Transconductance Amplifier', International Journal of Electronics and Communications (AEU) (Germany), vol. 63, no 6, pp. 497-501, June 2009.
40. Dinesh Prasad, **D. R. Bhaskar** and A. K. Singh, 'Multi-function Biquad Using Single Current Differencing Transconductance Amplifier", Analog Integrated Circuits and Signal Processing (USA), vol. 61, no. 3, pp. 309-313, December 2009.

41. **D. R. Bhaskar**, R. Senani and A. K. Singh, 'Realization of linear sinusoidal VCOs: New Configurations using Current feedback Op-Amps', International Journal of Electronics (UK), vol. 97, no. 3, pp. 263-272, March 2010.
42. S. S .Gupta, R. K Sharma, **D. R. Bhaskar** and R. Senani, 'Sinusoidal oscillators with explicit-current-output employing current feedback op-amps', International Journal of Circuit Theory and Applications (USA), vol. 38, no. 2, pp. 131-147, March 2010.
43. Dinesh Prasad, **D. R. Bhaskar** and A. K. Singh, 'New Grounded and Floating Simulated Inductance Circuits Using Current Differencing Transconductance Amplifiers', Radio Engineering Journal (Czech Republic), vol. 19, no. 1, pp. 194-198, April 2010.
44. **D. R. Bhaskar**, R. Senani A. K. Singh and S. S. Gupta, 'Two simple analog multiplier based linear sinusoidal VCOs using a single current feedback op-amp', Circuits and Systems (USA), vol. 1, no. 1, pp. 1-4, August, 2010.
45. Kasim K Abdalla, **D. R. Bhaskar** and R. Senani, 'New Universal Current-mode Biquad Using All Grounded passive Components and without requiring any Component –Matching', Journal of Active and Passive Electronic Devices (USA), vol. 6, no.1-2, pp. 101-107, 2011.
46. **D. R. Bhaskar**, Kasim K. Abdalla and Raj Senani, 'New SRCO with explicit current-mode output using two CCs and grounded capacitors', Turkish Journal of Electrical Engineering and Computer Sciences(Turkey), vol. 19, no. 2, pp. 235-242, 2011.
47. Dinesh Prasad, **D. R. Bhaskar** and A. K. Singh, 'Electronically Controllable Grounded Capacitor Current-mode Quadrature Oscillator using single MO-CCCDTA', Radio Engineering Journal (Czech Republic), vol.20, no.1, pp. 354-359, April 2011.
48. **D. R. Bhaskar,** Kasim K Abdalla and R. Senani, 'Electronically Controlled Current-mode second order Sinusoidal Oscillators Using MO-OTAs and Grounded Capacitors', Circuits and Systems (USA), vol.2, no. 1, pp. 65-73, April 2011.
49. **A.** K. Singh, R. Senani, **D. R. Bhaskar** and R. K. Sharma, 'A New Electronically tunable active only Universal Biquad', Journal of Circuits, Systems, and Computers (USA), vol. 20, no. 3, pp. 549-555, May 2011.
50. S. S. Gupta, **D. R. Bhaskar**, R. Senan**i** and A. K Singh**, '**Synthesis of linear VCOs: the state-variable approach**',** Journal of Circuits, Systems, and Computers (USA)**,** vol. 20, no. 4, pp. 587-606, June 2011.
51. Dinesh Prasad, **D. R. Bhaskar** and K. L. Pushkar, 'Realization of New Electronically Controllable Grounded and Floating Simulated Inductance Circuits using Voltage Differencing Differential Input Buffered Amplifiers', Active and Passive Electronic Components(USA), vol. 2011, Article ID 101432, doi:1155/2011/101432.
52. S. S. Gupta, **D. R. Bhaskar** and R. Senani**,** 'New Analog Inverse Filters realized with CFOAs', International Journal of Electronics (UK), vol. 98, no. 8, pp. 1103-1113, August 2011.
53. R. Senani, Kasim K. Abd Alla and **D. R. Bhaskar,** 'A state variable method for the realization of universal current-mode biquads', Circuits and Systems (USA), vol.2, no. 4, pp. 286-292, October 2011.
54. Ashish Gupta, R. Senani, **D. R. Bhaskar** and A. K. Singh, 'OTRA-based Grounded –FDNR and Grounded-Inductance Simulators and their Applications', Circuits, Systems and Signal Processing (USA), vol. 31, no. 2, pp. 489-499, 2012.
55. Kasim K Abdalla, **D. R. Bhaskar** and R. Senani, 'Configuration for Realizing a Current-Mode Universal Filter and Dual-Mode Quadrature SRCO', IET Circuits, Devices and Systems, vol. 6, no. 3, pp. 159-167, June 2012.
56. **D. R. Bhaskar**, S. S. Gupta, R. Senani and A. K. Singh, 'New CFOA-based Sinusoidal Oscillators retaining independent control of oscillation frequency even under the influence of parasitic impedances', Analog Integrated Circuits and Signal Processing (USA), vol. 73, no. 1, pp. 427-437, October2012.
57. Dinesh Prasad and **D. R. Bhaskar**, 'Electronically-controllable explicit current output sinusoidal oscillator employing single VDTA' ISRN Electronics (USA), vol. 2012, Article ID 382560,5 pages, doi:10.5402/2012/382560.
58. S. S. Gupta, **D. R. Bhaskar** and R. Senani, 'Synthesis of new single CFOA-based VCOs incorporating the voltage summing property of analog multipliers', ISRN Electronics(USA), vol. 2012, Article ID 463680, 8 pages, doi: 10.5402/2012/463680.
59. Kasim K. Abdalla, **D. R. Bhaskar** and R. Senani, ' A review of the evolution of current-mode circuits and techniques and various modern analog circuit building blocks', Nature and Science, vol. 10, no. 10, pp. 1-13, 2012.
60. Dinesh Prasad and **D. R. Bhaskar**, 'Grounded and floating inductance simulation circuits using VDTAs', Circuits and Systems (USA), vol. 3, no. 4, pp. 342-347, October 2012.

61. R. Senani and **D. R. Bhaskar**, 'New Lossy/Loss-less Synthetic Floating Inductance Configuration realized with only two CFOAs', Analog Integrated Circuits and Signal Processing (USA), vol. 73, no. 3, pp. 981-987, December 2012.
62. Dinesh Prasad, **D. R. Bhaskar** and K. L. Pushkar, ' Electronically Controllable Sinusoidal oscillator employing CMOS VD-DIBAs', ISRN Electronics(USA), vol. 2013, Article ID 823630, 6 pages doi: 10.1155/2013/823630.
63. Dinesh Prasad, **D. R. Bhaskar** and Mayank Srivastava, 'Universal current-mode biquad filter using a VDTA', Circuits and Systems (USA), vol. 4, no. 1, pp. 32-36, January 2013.
64. K. L. Pushkar, **D. R. Bhaskar** and Dinesh Prasad, ' Voltage-mode universal biquad filter employing single voltage differencing differential input buffered amplifier', Circuits and Systems (USA), vol. 4, no. 1, pp. 47-51, January 2013.
65. K. L. Pushkar, **D. R. Bhaskar** and Dinesh Prasad, 'A New MISO-Type Voltage-Mode Universal Biquad Using Single VD-DIBA', ISRN Electronics(USA), vol. 2013, Article ID 478213, 5 pages, doi.org/10.1155/2013/478213.
66. K. L. Pushkar, **D. R. Bhaskar** and Dinesh Prasad, 'Single-resistance-controlled sinusoidal oscillator using single VD-DIBA', Active and Passive Electronic Components (USA), Vol. 2013, Article ID 971936, 5pages, doi.org/10.1155/2013/971936.
67. Dinesh Prasad, Mayank Srivastava and **D. R. Bhaskar**, 'Electronically controllable fully- uncoupled explicit current-mode quadrature oscillator using VDTAs and grounded capacitors', Circuits and Systems (USA), vol. 4, no. 2, pp. 169-172, April 2013.
68. Ashish Gupta, R. Senani, **D. R. Bhaskar** and A. K. Singh, ' New OTRA-Based Generalized Impedance Simulator', ISRN Electronics (USA), vol. 2013, Article ID 907597, 10 pages, doi.org/10.1155/2013/907597.
69. **D. R. Bhaskar,** Dinesh Prasad and K. L. Pushkar, 'Fully uncoupled Electronically Controllable Sinusoidal oscillator employing VD-DIBAs', Circuits and Systems (USA), vol. 4, no. 3, pp. 264-268, July 2013.
70. **D. R. Bhaskar,** Dinesh Prasad and K. L. Pushkar, 'Electronically-controllable grounded-capacitor-based grounded and floating inductance simulated circuits using VD-DIBAs', Circuits and Systems (USA), vol. 4, no. 5, pp. 422-430, September 2013.
71. Dinesh Prasad, **D. R. Bhaskar** and Mayank Srivastava, 'Universal voltage-mode biquad filter using voltage differencing transconductance amplifier', Indian journal of Applied &Pure Physics, vol. 51, pp. 864-868, December 2013.
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