

Resume

Prof. D. S. Patil

Director, School of Physical Sciences and

Head, Department of Electronics

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Summary: Dr. D. S. Patil has been graduated from Poona University with a [rank](#). He received the M.Sc. degree in Electronics Science with first [class](#) from the Poona University department of Electronics-Science in 1986. He secured M.C.M. degree with [A+ grade](#) from Poona University and the Ph.D. degree in Electronics from the North Maharashtra University, Jalgaon [Maharashtra], India. He qualified [state eligibility test](#) in Electronics in 1995. Since 1991, he has been working in the North Maharashtra University, Jalgaon and presently working as a [Professor and Head](#), Department of Electronics and [Director](#) of School of Physical Sciences, KBC North Maharashtra University, Jalgaon. He secured [high school scholarship](#) and [national merit scholarship](#). His name has been considered in the [Steering committee](#) as a member for the International Conference on Nanoscience and Technology, [Colorado, United States of America](#), [International vacuum Congress, China](#) and [International Conference on Nanoscience and Technology, Paris-2012](#). He has published more than [175 papers](#) in reputed journals and proceedings of the conferences. His research interests include the [nano-electronics](#), Materials development and characterization for the nano-technological and [optoelectronics applications](#) and [computer simulation](#) of nanostructures including [quantum dots and superlattice](#). He has developed with his research student [a novel model](#) of probability density spreading in GaN quantum wells and [microcontroller based spin coating system](#) for the deposition of nano-materials. He has guided many students for their innovative research. He visited [France](#), [Germany and Singapore](#) to attend international conferences and present his papers. Moreover, he visited [Technical University, Zurich, Switzerland](#) to know the various activities and research carried out in Electronics Technology department. He has been working as a [reviewer](#) for many reputed international journals. Recently, he has been awarded with outstanding reviewer award from Elsevier. He has delivered many [invited talks](#) and [popular lectures](#). Recently, he has edited the [book on semiconductor laser diode: Technology and Applications at an international level](#) which was published by Intech Publisher, Croatia, Europe. He has been serving as [editorial board member](#) of several reputed international journals.

1. **Full Name:** Prof. Dnyaneshvar Shaligram Patil
2. **Official Address:** Department of Electronics,
School of Physical Science,
KBC North Maharashtra University, Jalgaon.
- Email address:** patildsp@rediffmail.com
- Telephone No.:** 0257-22257475
- Mobile:** 9423515937 and 9518738599
3. **Education Qualification:** M.Sc. (Electronic-Science), M.C.M., Ph.D. (Electronics)

| Degree/ Examination | University | Year of Passing | Class Obtained | Percentage |
|----------------------------------|----------------------|----------------------------|------------------------------|-------------------|
| Bachelor of Science | Poona | 1984 | First | 78.9 % |
| Master of Science | Poona | 1986 | First | 63.3 % |
| Master of Computer Management | Poona | 1992 | A+ Grade | 72 % |
| State Eligibility Test | Poona | 1995 | Qualified Awarded | |
| Ph. D. | North Maharashtra | 2001 | | |

4. **Teaching Experience:** 33 Year
5. **Research Experience:** 27 Year
6. **Area of Research/Expertise.:**

- Nano electronics devices
- Nanosimulation
- Semiconductor and Optoelectronics device Simulation
- Device development, Fabrication and Characterization
- Metal oxide nanostructures

7. **Awards/Fellowships/prizes received.**

- Achieved Poona University rank in Bachelor of Science.
- Secured high school scholarship.
- Secured National Merit scholarship.
- Qualified State Eligibility Test
- Recipient of "Rashtriya Gaurav Award" sponsored by India-International Friendship Society.
- Nominated as a Steering committee member for International Conference on Nanoscience and Technology, Colarado, America-2008.
- Nominated as a Steering committee member for 18th International Vacuum Congress in Beijing, China from August 23-27, 2010.
- Recently name has been included in Who's who in the world published by Marquis.
- Outstanding reviewer award for the Elsevier Journals.

8. **Number of Ph.D. Students Completed.- 09**
9. **Number of Ph.D. students on going - 6**
10. **Number of M. Phil. Students completed- 02**
11. **Number of Books/Articles written: 3 Books and 05 articles**

12. Serving on Editorial Board of following International Journals:

- Insight Electronics
- Electronic Science Technology and Applications
- Journal of Electronic Research and Applications
- Imaging and Radiation Research
- Journal of Coating Science and Technology
- Journal of nanotechnology and Nano engineering
- Current Analysis on Communication Engineering
- International Journal of Electronics Engineering Research (IJEER)

13. Working experience with international bodies:

- ✓ Steering committee member ICNT 2013 (Paris)
- ✓ Steering committee member ICN+T 2010 (Beijing)
- ✓ Steering committee member VASSCAA-5 (Beijing)
- ✓ Steering committee member ICNT 2012 (Paris)
- ✓ Invited to deliver a speech at Singapore in Asia Interfinish-2010 international conference, October 2010.
- ✓ International program committee of OPAL conference

14. Research Projects Completed:

| Sr. No. | Title of the Project | Name of the funding agency | Amount (Rs.) | Duration | | | Remarks |
|---------|--|------------------------------|--------------|------------|------------|--------|------------------------|
| | | | | From | To | Total | |
| 01 | Computer Simulation Tools for the GaN based blue laser diode | DST, India | 8.16 lakh | 19/05/2003 | 18/05/2006 | 3 year | Completed Successfully |
| 02 | Impurity Diffusion system | University Grants Commission | 0.15 lakh | 1998 | 1999 | 1 year | Completed Successfully |
| 3 | Investigation of doped ZnO nanostructures | University Grants Commission | 10.38 lakh | 01/02/2011 | 31/01/2014 | 3 year | Completed Successfully |

15. **Scientific collaborators-** Prof. Dr. Fahrettin, YAKUPHANOGLU, Firat University

16. **Memberships.** - -- IEEE member (2012)

17. **Administrative Work experience and others.-**

- Working as a Director of School of Physical Sciences
- Working as a Head of Department of Electronics
- Working as a Board of Studies Chairman in Electronics and Instrumentation
- Working as an Academic council member of the university
- Working as a Board of Examination member of the university
- Working as a Maharashtra State board member
- Working as a Board of Research member of the university
- Working as a Board of Studies member at Pratap college, Amalner
- Working as a Board of Studies member at Government Engineering College, Jalgaon.
- Working as a Research and Review committee member of Amaravati University.
- Worked as acting Head of Electronics Department.
- Working in the department since its commencement (1991).
- Successfully Worked as Examination Committee chairman for the M.SC. (Electronics) Examination and co-coordinator for the M.Tech.(VLSI Technology) examination.
- Worked as a project officer for the central assessment Program during April/May-2005 examinations.
- Served as a member of research and review committee and interview committee.
- Developed the Electronics Practical laboratory and curriculum during establishment of Electronics Department
- Worked on various committees of the University
- Worked as a resource person for the refresher course in physics
- Organized various seminars/workshops/conferences at North Maharashtra University, Jalgaon.
- Worked as a Editorial Committee member for the Proceedings of two international Conferences and abstract book for one national seminar.
- Contributed in coaching for National Eligibility Test/ State Eligibility Test to Electronics and computer science students.
- Framed syllabus of M. Phil (Electronics) and M.Sc.(Electronics-Science).
- Developed curriculum of F.Y.B.Sc. and S.Y.B.Sc.(Electronics) in CBCS form
- Guided to many projects of post graduate students.
- Delivered several invited and popular talks
- Deliver a talk on “Computer Viruses” at the Akashwani, Jalgaon.
- Attended many workshops/seminars and conferences.
- Worked as a reviewer for reputed international journals.
- Worked as a coordinator for the academic committee at our department under academic flexibility Program.

List of Research Papers Published – Journals

Scopus h-index: 17

Google Scholar h-index: 23

i10 index: 63

1. L.M. Mahajan, C.K. Kasar, **D.S. Patil**, "Structural, optical and electrical properties of post annealed K-doped ZnO films for optoelectronics applications", **Materials Research Express** 6 (2019) 076437.
2. L.M. Mahajan, **D.S. Patil**, "Investigation of optical and electrical properties of lithium doped ZnO nano films", **Materials Research Express** 6 (2019) 045053
3. U.S Sonawane, E.P Samuel, C.K Kasar, **D. S. Patil**, Effect of biasing voltage on quantum confinement in GaN/AlxGa1-xN nanowire structure, **Optik-International Journal for Light and Electron Optics** 137 (2017) 115-123
4. *Chetan K. Kasar*, Jaspal P. Bange, and **D.S. Patil**. "Effect of cerium composition on optical and structural properties of cerium doped ZnO nanowires." **Journal of Materials Science: Materials in Electronics** 28(15) (2017) 11217-21
5. S. V. Mahajan, S.S. Pathak, **D. S. Patil**, FPGA Implementation of Digital Watermarking System Using DWT and LSB Algorithm", **IJSETR**, 6(18), (2017)
6. SS Patil, SS Pathak, RR Kathar, **D S Patil**, "Low power based dual mode logic gates using power gating", **IRJET**, (2017)
7. P A Kharche, S S Pathak, S M Rane, **D S Patil**, "Implementation of half subtractor and full subtractor based on CNTFET", **IRJET** 4(5), (2017)
8. S M. Rane, S. S. Pathak, P. A. Kharche, **D. S. Patil**, "4-Bit Full Adder Using 1-Bit Hybrid 13T Adder", **IRJET**, Volume: 4(5), (2017)
9. Sagar Pathak, Swapnil S. Patil, Kumud G. Ingale, **D.S. Patil** " Low Power Comparator Using Double Tail Gate Technique" , International Research Journal of Engineering and Technology (**IRJET**), 03 (12) (2016) 1083-1087
10. Salman Shah, **D.S. Patil** "Implimentation of OFDM Transmitter and Recevier on FPGA with Verilog using mixed Radix8-2 Algorithms." International Research Journal of Engineering and Technology (**IRJET**), 03 (10) (2016) 1011-1015
11. Sheetal Bhojane, Purnima Chaudhari , Mayur More, **D.S. Patil** " A review on Designing of 4 bit ALU using GDI Technique at 45nm, 32nm, International Research Journal of Engineering and Technology (**IRJET**), 03(10) (2016) 1238-1242
12. Purnima Chaudhari, Ashwini Khadke, Mayur More, **D.S. Patil** " Ultra Low Power , Low Voltage, 16 bit BCD adder using DTMOS techniques" International Research Journal of Engineering and Technology (**IRJET**), 03 (10) (2016) 1115-1118
13. Ashwini Khadke, Purnima Chaudhari , Mayur More, **D.S. Patil** " Designing of SRAM using lector technique to reduce leakage power" International Research Journal of Engineering and Technology (**IRJET**), 03 (10) (2016) 1110-1114

14. Chetan K. Kasar, Ulhas S Sonawane, Jaspal P. Bange, **D.S. Patil** "Optical and structural properties of nanoscale undoped and cerium doped ZnO with granular morphology, **J.Mater Sci.:Mater Electron**. 27.11 (2016) 11885-89
15. Chetan K. Kasar, Ulhas S Sonawane, Jaspal P. Bange, **D.S. Patil** "Blue Luminescence of Ba_{0.05}Zn_{0.95}O Nanostructure" **J.Mater Sci.:Mater Electron**., 27(8), (2016) 8126-30
16. Ulhas S. Sonawane, E.P. Samuel, Chetan K. Kasar, **D.S. Patil**, "Nanosimulation of electron confinement in cerium doped Zinc oxide nanowire structures for light emitting devices", **Optik**, 127 (2016) 4937–4940
17. S.C.Kulkarni , **D.S.Patil** " Synthesis and Characterization of Uniform spherical shape nanoparticles of indium oxide" **J.Mater Sci.:Mater Electron**, 27 (4) (2015) 3731-3735
18. S.C.Kulkarni, **D.S.Patil** " Effect of PdCl₂ molarity on the gas sensing properties of Nanocrystalline Indium oxide" **Sensor Letter**, 13 (2015) 294-299
19. Ulhas S. Sonawane, E.P.Samuel, Chetan Kasar, **D.S.Patil**, "Analysis of tunneling phenomenon and electron confinement in quantum nano-wire", **Applied Mechanics and Materials**, 481,(2014), 4044
20. Chetan K. Kasar, Ulhas S Sonawane, **D.S. Patil**, "Effect of post annealing temperature on Ce doped ZnO nanostructure", **Applied Mechanics and Materials** 481,(2014), 45-48
21. Edmund P Samuel, Ulhas Sonawane, Bhavana N. Joshi, **D. S. Patil** "Investigation of Diverse Characteristics of Strained III-V Nitride Quantum Well", **International Journal of Engineering and Technical Research (IJETR)**, 2(9),(September 2014), 372-375
22. Vrushali shelake,M.P. Bhole and **D. S. Patil** "optoelectrical charecterization of transperent conducting sanddune shaped Indium doped ZnO nanostructures", **Journal of alloys and compounds** 560 (2013) 147–150
23. Vrushali shelake,M.P. Bhole and **D. S. Patil**, "Effect of open air annealing on spin coated aluminum doped ZnO nanostructure", **Materials Chemistry and Physics** 141 (2013) 81–88.
24. Ulhas S. Sonawane,E.P. Samuel, Ujwala Zope, **D.S. Patil**, "Analysis of electron confinement in GaN/Al_xGa_{1-x}N quantum wire nanostructure", **Optik**, 124 (2013) 802–806
25. Vrushali Shelke, M.P. Bhole, **D.S. Patil**, "Open air annealing effect on the electrical and optical properties of tin doped ZnO nanostructure", **Solid State Sciences**, 14 (2012) 705-710.
26. Vrushali Shelke, B. K. Sonawane , M. P. Bhole, **D. S. Patil**, "Electrical and optical properties of transparent conducting tin doped ZnO thin films", **J. Mater Sci: Mater Electron**, 23 (2012) 451456.
27. B.K. Sonawane, Vrushali Shelke, M.P. Bhole, **D.S. Patil**, "Structural, optical and electrical properties of cadmium zinc oxide films for light emitting devices" **Journal of Physics and Chemistry of Solids**, 72 (2011) 1442–1446.
28. Kanchan Talele, E. P. Samuel, **D. S. Patil**, "Analysis of carrier transport properties in GaN/Al_{0.3}Ga_{0.7}N Multiple Quantum well nanostructures", **Optik-International Journal for Light and Electron Optics**, 122 (2011) 626–630.
29. Bajirao K. Sonawane, Mukesh P. Bhole and **D. S. Patil**, "Single crystalline a-axis Mg doped ZnO thin films prepared by Sol-gel technique for Optoelectronics applications", **Materials Science Forum**, 638 (2010) 2915-2920.
30. B.K. Sonawane, M.P. Bhole, **D.S. Patil**, "Effect of magnesium incorporation in zinc oxide films for optical waveguide applications", **Physica B**, 405 (2010) 1603–1607
31. **D. S. Patil**, E. P. Samuel, "Analysis of optical properties of GaN/AlGa_n Quantum Well Ultra-violet Laser diode using 6X6 Hamiltonian", **Materials Science Forum**, 638 (2010) 1653-1658.

32. B.K. Sonawane, M.P. Bhole, **D.S. Patil**, "Structural, optical and electrical properties of MgZnO ternary alloy films", **Materials Science in Semiconductor Processing**, 12 (2009) 212-216
33. Vrushali P. Shelke, B. K. Sonawane, M. P. Bhole, **D. S. Patil**, "Effect of annealing temperature on optical and electrical properties of aluminum doped zinc oxide film" **Journal of Non-Crystalline Solids**, 355 (2009) 840-843.
34. H. Badhane, E. P. Samuel, and **D. S. Patil**, "Peak optical gain at 377 nanometer and near field intensity in Zinc Oxide based quantum well using electromagnetic theory", **Journal of Electromagnetic Waves and Appl.**, 23, (2009) 351–359.
35. M. P. Bhole, **D. S. Patil**, "Effect of annealing temperature on optical constants of ZnO films", **Journal of Physics and Chemistry of Solids**, 70 (2009) 466–471.
36. H. P. Bhadane, E. P. Samuel, **D. S. Patil**, "Investigation of optical gain in ZnO/MgZnO quantum well incorporating piezoelectric polarization", **Optoelectronics and Advanced Materials – Rapid Communications**, 3(3) (2009) 200 – 203.
37. Ujwala Zope, E.P. Samuel, M.P. Bhole, **D.S. Patil**, "Optical field distribution in ZnO/MgZnO quantum dot nanostructure at 375-nm wavelength", **Physica E**, 42 (2009) 38–41
38. B. K. Sonawane, M. P. Bhole, **D. S. Patil**, "Structural, optical and electrical properties of post annealed Mg doped ZnO films for optoelectronics applications", **Optical and Quantum Electronics**, 41 (2009) 17–26
39. B. K. Sonawane, M. P. Bhole, **D. S. Patil**, "Synthesis and characterization of nano-crystalline MgZnO films deposited by spin coating method, **Journal of Optoelectronics and Advanced Materials**, 11(11) (2009) 1743-1747.
40. E. P. Samuel and **D. S. Patil**, "Analysis of properties of nitride based quantum well laser diode using Luttinger-Kohn Hamiltonian", **Optoelectronics and Advanced Materials-Rapid communication**, 2(8) (2008) 498-501.
41. Kanchan Talele, **D. S. Patil**, "Exploration of electron confinement in multiple quantum well using iii-v semiconductor materials", **An International Research J. of Materials Science-Materials Research India**, 5(1) (2008) 193-194.
42. Kanchan Talele and **D. S. Patil**, "Computation of optical field intensity in nitride based superlattice nanostructures for temperature range (300-370K)", **Optoelectronics and Advanced MaterialsRapid communication**, 2(7) (2008).
43. Kanchan Talele, E. P. Samuel, **D. S. Patil**, "Investigation of Near Field Intensity In GaN MQW In 300–375 nm", **Journal of Electromagnetic Waves and Applications**, 22 (2008) 1122-1130.
44. E. P. Samuel and **D. S. Patil**, "Analysis of Wavefunction Distribution In Quantum Well Biased Laser Diode Using transfer Matrix Method", **Progress in Electromagnetics Research Letters**, 1 (2008) 119-128.
45. Kanchan Talele and **D. S. Patil**, "Analysis of Wave Function, Energy and Transmission Coefficients in GaN/AlGaIn Superlattice Nanostructures", **Progress in Electromagnetics Research**, 81 (2008) 237-252.
46. Ujwala Zope, E. P. Samuel and **D. S. Patil**, "Optical confinement in GaN based quantum dot embedded heterostructure", **Optoelectronics and Advanced Materials-Rapid communication**, 2(1) (2008) 4-9.
47. M. P. Bhole, **D. S. Patil**, "Single Crystalline a-Axis ZnO Thin Films Deposited By Sol-Gel Method For Optoelectronic Devices". **Modern Physics Letters B**, 22 (2008) 685-691.
48. B. K. Sonawane, M. P. Bhole, **D. S. Patil**, "Influence of post annealing on the structural and optical properties of MgZnO films", **Optoelectronics and Advanced Materials-Rapid communication**, 2(11) (2008) 714-718.

49. V. Shelake, M. P. Bhole, **D. S. Patil**, "Aluminum doped Zinc Oxide films as a transparent conducting electrode for organic Light Emitting Devices", **Optoelectronics and Advanced Materials-Rapid communication**, 2(6) (2008) 353-355.
50. V. Shelke, B .K. Sonawane, M. P. Bhole, **D. S. Patil**, "Annealing temperature effect on the aluminum doped ZnO films for transparent electronics", **Optoelectronics and Advanced Materials-Rapid communication**, 2(10) (2008) 666-668.
51. Kailas Parande, Kanchan Talele, E. P. Samuel, **D. S. Patil**, "Analysis of Electron Transport Phenomena in Quantum Well Laser Diode", **An International Research J. of Materials Science-Materials Research India**, 5(1) (2008) 187-188.
52. M. P. Bhole, E. P. Samuel, **D. S. Patil**, "Analysis of Near and Far field intensities in ZnO based heterostructure waveguides" **J. of Modern Optics**, 55 (2008) 1427-1439.
53. Smruti Motarwar, Kanchan Talele, E. P. Samuel, **D. S. Patil**, "Hole-Phonon Scattering Mechanism in III-V Semiconductor Multiple Quantum Well", **An International Research J. of Materials Science-Materials Research India**, 5(1) (2008) 203-204.
54. M. P. Bhole, E. P. Samuel, **D. S. Patil** "Numerical Simulation of Optical Confinement in ZnO based Heterostructure Waveguide at 375 nm Wavelength" **International J. of Modern Physics B**, 22(12) (2008) 1985-1995.
55. Ujwala Zope, Gauri Kasar, E. P. Samuel, **D. S. Patil**, "Effect of Aluminum Mole Fraction on the Hamiltonian of GaN/AlGa_N Quantum Dot Laser", **An International Research J. of Materials Science-Materials Research India** , 5 (2008) 181-182.
56. M. P. Bhole **D. S. Patil**, "Deposition of non-polar a-axis nanocrystalline ZnO thin films for light emitting applications", **Optoelectronics and Advanced Materials-Rapid communication**, 1(12) (2007) 672-676.
57. Kanchan Talele, **D. S. Patil**, "Quantum confinement and electron capture analysis in GaN multiple quantum well structures", **Optoelectronics and Advanced Materials-Rapid communication**, 1(12) (2007) 693-697.
58. E. P. Samuel and **D. S. Patil**, "Analysis of electron confinement in quantum well biased laser diode using quasi transmitting boundary method", **Optoelectronics and Advanced Materials-Rapid communication**, 1(12) (2007) 698-701.
59. E. P. Samuel, Kanchan Talele, Ujwala Zope and **D. S. Patil** "Semi-classical analysis of hole capture in Gallium Nitride quantum wells", **Optoelectronics and Advanced Materials-Rapid communication**, 1(5) (2007) 221-226.
60. E. P. Samuel **and D. S. Patil**, "Effect of Aluminum mole fraction and well width on the probability density spreading in GaN/AlGa_N quantum well", **Optoelectronics and Advanced Materials Rapid communication**, 1(8) (2007) 394-399.
61. S. A. Gaikwad, E. P. Samuel, **D. S. Patil**, D. K. Gautam, "Analysis of threshold parameters for GaN/AlGa_N heterostructure lasers", **Bulletin Materials Science**, 30 (2007) 255-261.
62. S. A. Gaikwad, E. P. Samuel, **D. S. Patil**, D. K. Gautam, "Temperature dependent Analysis of Refractive Index, Band gap and Recombination coefficient in nitride semiconductor lasers", **Indian Journal of Pure and Applied Physics**, 45 (2007) 238-242.
63. Kanchan Talele, E. P. Samuel, **D. S. Patil**, "Carrier Transport Studies and Scattering Mechanism in GaN/AlGa_N Superlattice for the High Speed Lasers", **Optoelectronics and Advanced Materials-Rapid communication**, 1(11)(2007) 576-582.
64. V. K. Tomar, **D. S. Patil** and D. K. Gautam, "Deposition and characterization of Silicon oxynitride using HMDS for photonics Applications", **Semicond. Science and Technology**, 22 (2007) 43-47.

65. E P Samuel, M P Bhole and **D. S. Patil**, "Mode confinement and near field intensity analysis in a GaN-based blue-green laser diode", **Semicond. Science and Technology**, 21 (2006) 993-997.
 66. R. K. Pandey, L. S. Patil, J. P. Bange, D. R. Patil, A. M. Mahajan, **D. S. Patil** and D. K. Gautam, "Growth and Characterization of SiON thin films by using thermal-CVD machine", **Optical Materials**, 25(2004) 1-7.
 67. **D. S. Patil** and D. K. Gautam, "Analysis of effect of temperature on the blue laser diode characteristics at 507 nanometer wavelength", **Physica B**, 344 (2004) 140-146.
 68. **D. S. Patil** and D. K. Gautam, "Computer aided simulation tools for the analysis of semiconductor lasers", **Institution of Electronics and Telecommunications Engineers-Technical Review**, 20(6) (2003) 533-540.
 69. **D. S. Patil**, C.B. Chaudhari, and D. K. Gautam, "Optimization of structural parameters of power combiner for high power blue laser diode", **Pure and Applied Optics**, 4(3) (2002) 338-343.
 70. **D. S. Patil** and D. K. Gautam, "Computer analysis and optimization of physical and material parameters of the blue laser diode", **Optics Communications**, 201 (2002) 413-423.
 71. **D. S. Patil** and D. K. Gautam, "Semiconductor Laser diode modeling and analysis", **Laser Horizon**, 5 (2001) 39-47.
 72. Chitrarekha Chaudhari, **D. S. Patil** and D. K. Gautam, "A new techniques for the reduction of the power loss in the Y-branch optical power splitter" **Optics Communications**. 193 (2001) 121-125. (Impact Factor: 1.438)(Cited by 24)
 73. **D. S. Patil**, C. B. Chaudhari and D. K. Gautam, "Simulation of blue laser diode with power combiner for high power applications", **Laser horizon** 5 (2001) 43-47.
 74. Chitrarekha Chaudhari, **D. S. Patil**, L. S. Patil and D. K. Gautam, "Computer aided design of the monolithically integrated 807 nm laser diodes and power combiner for high power applications, **Special issue of Laser Horizon**, Vol. 4, No.1, pp. 49- 55, (2000).
 75. **D. S. Patil** and D. K. Gautam, "Analysis of current spreading in a planar structure laser with a stripe contact", **Laser horizon**, 4 (2000) 31-38.
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List of Books Published / Edited

1. Edited book on “**Semiconductor Laser Diode: Technology and Applications**”, ISBN 979-953-307-326-1, Croatia, **Europe, Intech Publisher** (2012)
2. Guest Edited book on “**Metal Oxide Nanostructures: Synthesis, Properties, and Applications**” Journal of Nanotechnology Volume 2015 (2015), Article ID 135715 <http://dx.doi.org/10.1155/2015/135715>
3. Author of the book on “**Digital Integrated Circuits**”,(2018) ISBN: 978-93-88113-46-5, Prashant Publication.
4. Contributing author of several **Electronics books** for graduate students
5. Chetan Kasar, Ulhas Sonawane, Prasantha Mudimela, Jean-Francois Colomer, **D.S.Patil**, “Single crystalline films of ZnO for nanorod applications” **Physics of Semiconductor Devices, Environmental Science and Engineering**, DOI: 10.1007/978-3-319-0302-9_19
6. Chetan Kasar, Ulhas Sonawane, Jaspal Bange, **D.S.Patil**, “Structural and optical properties of Single crystalline cerium doped ZnO Thin Films” **Recent Trends in materials and Devices, Springer Proceeding in Physics. 178** DOI: 10.1007/978-3-319-29096-6_32
7. Shalaka V. Bhole, Ulhas Sonawane, Chetan Kasar, , Jaspal Bange, **D.S.Patil**, “ Study of Varying Tubes in Carbon Nanotube FET Based Inverter” **Recent Trends in materials and Devices, Springer Proceeding in Physics. 178** DOI: 10.1007/978-3-319-29096-6_69
8. **D. S. Patil**, Vrushali. P. Shelke, M. P. Bhole, “Electrical and Optical Characteristics of Transparent Aluminum Doped ZnO Films”, Published in a book “**Advances in applied surface Engineering**”, **Research Publishing services, Singapore**, ISBN: 978-981-08-7922-8 (2011)
9. B. K. Sonawane, Vrushali Shelke, M. P. Bhole and **D. S. Patil**, “Deposition and Characterization of excitonic ZnO films for optoelectronics applications”, Published in a book “**Advances in applied surface engineering**”, **Research Publishing services, Singapore**, ISBN: 978-981-08-7922-8 (2011)

List of Papers Presented in Conferences

1. Ulhas Sonawane, U. Zope, E. P. Samuel, **D. S. Patil**, "Study of electron confinement in GaN/Al_{0.25}Ga_{0.75}N square shaped quantum Nano-wire", National Laser Symposium-2012.
2. Ujwala Zope, Ulhas Sonawane, E. P. Samuel, **D. S. Patil**, "Analysis of wave function and absorption in GaN based quantum dot nanostructures", International Conference ICNB-2011.
3. Sayali Patil, E. P. Samuel, **D. S. Patil**, "Information security in computer networks using random key for cryptography", International Conference ICNB-2011.
4. Girish Ghodke, Satish Koli, Priyanka Patil, **D. S. Patil**, "An effective water supply system using Programmable logic controller, International Conference ICNB-2011.
5. Megha Sawale, Khushboo Agrawal, **D. S. Patil**, D. K. Gautam, "Online monitoring of electronics devices through developed web sight", International Conference ICNB-2011.
6. D. P. Dawange, Milind Amrutkar, Sunil Bhakade, Ulhas Sonawane, **D. S. Patil**, "Development of nitrogen annealing furnace and its control by using mobile phone and microcontroller", International Conference ICNB-2011.
7. S. C. Kulkarni, **D. S. Patil**, "Synthesis of nanocrystalline indium oxide powder using aloe-vera plant extract and its structural and optical properties", International Conference ICNB-2011.
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