

Dr. Ulhas S. Sonawane *Assistant Professor*



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📍 S/O S. G. Sonawane 12, Wankhedkar Nagar, Walwadi Shiwar, Deopur, Dhule. (MS) India.

📅 09/03/1984

👤 Married

🇮🇳 Indian

♂ Male

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Education

01/2019	Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon, India, Ph.D. (Electronics) Ph.D. Title: "Modeling and Simulation of Nano-wire Laser diode"
07/2017	National Eligibility Test (NET) Qualified NET for Assistant Professor conducted in July 2017.
09/2015	Maharashtra State Eligibility Test (MH-SET) Qualified Maharashtra State Eligibility Test (SET) for Assistant Professor conducted on 6th September 2015
06/2009	North Maharashtra University, Jalgaon, M.Sc. (Electronics) Secured First Class (63%)
06/2005	North Maharashtra University, Jalgaon., B.Sc. (Electronics) secured First Class (74.08%)
05/2002	Jai Hind College, Dhule, H.S.C. Nasik Divisional Board in May 2002 secured First Class (67%)

Professional Experience

12/2018 – present	S.T.E.S. & Co-Op Education Society Ltd's Science Senior College, Shahada., Assistant Professor Working as IQAC Coordinator and Staff Development Academy Coordinator from June 2020.
09/2017 – 11/2018	Mahatma Gandhi College of Arts, Commerce & Science, Chopda., Assistant Professor Working as Contributory Lecturer in Department of Electronics
05/2013 – 09/2017	Department of Electronics, N.M.U. Jalgaon., UGC-BSR (Basic Scientific Research) Fellow
09/2010 – 04/2011	Department of Electronics, N.M.U. Jalgaon., Assistant Professor (CHB)
09/2009 – 04/2010	Mahatma Gandhi College of Arts, Commerce & Science, Chopda., Contributory Lecturer
05/2006 – 01/2009	Cognizant Technology Solutions (CTS) Pune., Programmer

Skills

MATLAB

Coding for different Numerical methods.



VHDL

Coding for different Basic Digital Logic gates and Basic Logic Circuits



Courses

06/2020 – 05/2021

Post Graduate Diploma in Embedded System Design,

Swami Ramanand Teerth Marathwada University, Nanded

Completed Post Graduate Diploma in Embedded System design with A+ grade (71.87%)

Faculty Development Programs

"Leadership and Excellence in Higher Education",

AICTE Training And Learning (ATAL) Academy Online Elementary FDP

From 23/08/2021 to 27/08/2021 at RCPET's R. C. Patel Arts, Commerce and Science College, Shirpur

"Hands-on approach for the Design and Implementation of Lab-on-Bread Board- A Blended learning",

AICTE Training and Learning (ATAL) Academy Online Elementary FDP

From 2021/7/21 to 2021/7/25 at The National Institute of Engineering Mysore.

"Best Teaching Learning and Assessment Practices in Computer Science/Information Technology based on National Education Policy (NEP)"

AICTE Training and Learning (ATAL) Academy Online Elementary FDP

From 2021/7/5 to 2021/7/9 at Sri Jayachamarajendra College of Engineering.

"Three days online Basic Optimization technology workshop"

R.E.S.T. Society for Research International (RSRI)

From 04/05/2020 to 06/05/2020 at R.E.S.T. Society for Research International (RSRI), Krisinagar, Tamilnadu

"One week faculty development program on ICT tools", STP-IIT Bombay

From 11/05/2020 to 16/05/2020 at Shree Vidyaniketan Engineerig college, Tirupati

"Professional Development Programme on 'Implementation of NEP2020 for University and College Teachers'"

UGC Approved Short Term Professional Development Programme, held from October 27 to November 05, 2022

by Staff Training and Research Institute of Distance Education, New Delhi 110068

Publications

12/2021

"Sonocatalytic Degradation of Methylene Blue by MoS₂-RGO Nanocomposites",

Springer Link

Patil, D. R., Sarode, K. M., Nerkar, D. M., Patil, U. D., Bachhav, S. G., Sonawane, U. S., & Paliwal, N. *Russian Journal of Physical Chemistry A*, 95(12), 2530-2537. (IF=0.75)

05/2017

"Effect of biasing voltage on quantum confinement in GaN/Al_xGa_{1-x}N nanowire structure.", Elsevier

Sonawane, Ulhas S., E. P. Samuel, C. K. Kasar, and D. S. Patil. *Optik-International Journal for Light and Electron Optics*, 137, 115-123. (IF= 2.443)

07/2016

"Optical and structural properties of nanoscale undoped and cerium doped ZnO with granular morphology.", Springer Link

Kasar, Chetan K., Ulhas S. Sonawane, Jaspal P. Bange, and D. S. Patil. *Journal of Materials Science: Materials in Electronics*, 27, no. 11 (2016): 11885-11889. (IF= 2.779)

09/2016

"Self consistent analysis of electron transport in GaN/AlGa_N super lattice nanostructure for light emission.", Elsevier

Patil, D. S., Kanchan Talele, E. P. Samuel, and Ulhas S. Sonawane. *Optik-International Journal for Light and Electron Optics*, 127, no. 18 (2016): 7374-7381. (IF= 2.443)

- 04/2016 **"Blue luminescence from Ba_{0.05}Zn_{0.95}O nanostructure."**, Springer Link
Kasar, Chetan K., **Ulhas S. Sonawane**, Jaspal P. Bange, and D. S. Patil. *Journal of Materials Science: Materials in Electronics*, 27, no. 8 (2016): 8126-8130. (IF= 2.779)
- 06/2016 **"Nanosimulation of electron confinement in cerium doped zinc oxide nanowire structure for light emitting devices."**, Elsevier
Sonawane, Ulhas S., E. P. Samuel, Chetan K. Kasar, and D. S. Patil. *Optik-International Journal for Light and Electron Optics* 127, no. 12 (2016): 4937-4940. (IF= 2.443)
- 12/2013 **"Analysis of Tunneling Phenomenon and Electron Confinement in Quantum Nanowire."**, Trans Tech Publications
Sonawane, Ulhas S., E. P. Samuel, Chetan Kasar, and D. S. Patil. In *Applied Mechanics and Materials*, vol. 481, pp. 40-44., 2014. (IF= 0.112)
- 12/2013 **"Effect of Post Annealing Temperature on Cerium Doped ZnO Nanostructures."**, Trans Tech Publications
Kasar, Chetan K., **Ulhas S. Sonawane**, and D. S. Patil. In *Applied Mechanics and Materials*, vol. 481, pp. 45-48. 2014. (IF= 0.112)
- 09/2014 **"Investigation of Diverse Characteristics of Strained III-V Nitride Quantum Well."**, ER Publications
Samuel, Edmund P., **Ulhas Sonawane**, Bhavana N. Joshi, and D. S. Patil. *International Journal of Engineering and Technical Research (IJETR)*, Vol. 2(9)(2014):372-375
- 05/2013 **"Analysis of electron confinement in GaN/Al_xGa_{1-x}N quantum wire nanostructure."**, Elsevier
Sonawane, Ulhas S., E. P. Samuel, Ujwala Zope, and D. S. Patil. *Optik-International Journal for Light and Electron Optics* 124, no. 9 (2013): 802-806.

Book and Book Chapters

- 2023 **ELE-202 Digital Circuits**
Prof.(Dr.)A.L.Chaudhari, Prof.(Dr.) R.S.Khadayte, Dr. L.B.Patle,**Dr.Ulhas S. Sonawane**
- 2022 **ELE-102 Basics of Digital Electronics**, ISBN:-978-93-95227-03-2
Prof.(Dr.)A.L.Chaudhari, Prof.(Dr.) R.S.Khadayte, Dr. L.B.Patle,**Dr.Ulhas S. Sonawane**
- 2017 **"Study of Varying Tubes in Carbon Nanotube FET Based Inverter."**, "Recent Trends in Materials and Devices" published by Springer Cham
Bhole, Shalaka V., **Ulhas S. Sonawane**, Chetan K. Kasar, Jaspal P. Bange, and D. S. Patil.
- 2017 **"Structural and Optical Properties of Single Crystalline Cerium Doped ZnO Thin Films."**, "Recent Trends in Materials and Devices" published by Springer Cham
Kasar, Chetan K., **Ulhas S. Sonawane**, Jaspal P. Bange, and D. S. Patil.
- 2014 **"Single Crystalline Films of Zinc Oxide for Nanorod Applications."**, "Physics of Semiconductor Devices" published by Springer Cham
Kasar, Chetan, **Ulhas Sonawane**, Prasantha Mudimela, Jean-Francois Colomer, and D. S. Patil.

Paper Presentation International Conferences/Symposium

- Singapore **"Analysis of tunneling phenomenon and electron confinement in quantum nanowire"**, International Symposium on Quantum, Nano and Micro Technologies-2013, 'ISQNM-2013',
- Vishakhapattanam,A.P, India **"Study of probability density and electron wave distribution in GaN/Al_xGa_{1-x}N quantum wire"**, International Conference on Nanotechnology and biosensors 'ICNB-2011',
- Vishakhapattanam,A.P., India **"Investigation of electron properties in quantum wire nanostructure"**, International Conference on Nanotechnology and biosensors 'ICNB-2010'

Paper Presentation in National Conferences/Symposium

- Anna University, Chennai,,
India **“Study of electron confinement in GaN/Al_{0.25}Ga_{0.75}N square shaped quantum nanowire”**, 20th National Laser Symposium, NLS-2012
- BARC, Trombe, Mumbai,,
India **“Investigation of Mole Fraction Dependence of Quantum Wire using Kronig Pennney Model”**, Nineth National symposium, NLS-2010

Invited/Expert /Resource person Talks

“Need of Personality Development”,

Key note address in “State level Workshop on Personality Development and Soft Skills

conducted by Training and Placement Cell, MGSM’s Arts, Science and Commerce Chopda on 15th February 2022.

“Circuit Simulation using Xilinx Software”

Resource Person in “3 days online lecture series”, organised by the Department of Electronics, Maharaj Sayajirao Gaikwad Arts, Science and Commerce College Malegaon, through online mode on 24th January 2022

“As a customer our rights and responsibilities”

Invited lecture on 23rd December 2021 at Senior Arts Mahila Mahavidyalay, Shahada

“Workshop on Characterization Techniques for Nanomaterials”

As Resource Person on 7th and 8th December 2021 organized by the Department of Physics, Annasaheb Awate Arts, Commerce and Hutatma Babu Genu Science College Manchar, through online mode

“IoT and its Applications”

As Resource Person on 27th October 2021 organized by the Department of Electronic Science, Annasaheb Awate Arts, Commerce and Hutatma Babu Genu Science College Manchar, through online mode.

“Recent Advances & Qualitative Research in Electronics ”

Online Expert Talk organized by the Department of Electronic Science, K.T.H.M. College, Nashik, under UGC-STRIDE Scheme, during 9th August - 14th August 2021.

“University Level hands on training workshop on MATLAB based practical for S.Y.B.Sc.”

As resource person on 21st December 2019 at Department of Electronics and Physics, J.D.M.V.P. Co-Op Samaj’s Shri S.S.Patil Arts, Shri. Bhausahab T.T. Salunkhe Commerce and Shri. G.R. Pandit Science College, Jalgaon

Organizing member of Conference/Seminar/Workshop

- 06/2021 **“Understanding of Program Outcome, Program Specific Outcome and Course Outcome”**
Worked as Convener for One Day National Level Webinar held on 9th June 2021 online by IQAC, S.T.E.S. and Co.Op. Edu. Soc. Ltd’s Science Senior College Shahada.
- 12/2016 **“National conference on Electronic Materials Thin films and its Applications (NCEMTFA-2016)”**
Worked as abstract book editor for “National conference on Electronic Materials Thin films and its Applications (NCEMTFA-2016)” held on 9th and 10th December 2016 at Department of Electronics and Physics, J.D.M.V.P. Co-Op Samaj’s Shri S.S.Patil Arts, Shri. Bhausahab T.T. Salunkhe Commerce and Shri. G.R. Pandit Science College, Jalgaon

References

Dr. D. S. Patil, *Professor and Director*, School of Physical Sciences, KBC North Maharashtra University, Jalgaon.
patildsp@rediffmail.com, 9423515937

Dr. D. K. Gautam, *Former Professor and Head*, Department of Electronics, School of Physical Sciences, KBC North Maharashtra University,
dkgautam_nmu@hotmail.com

Dr. P. H. Pawar, *Principal*, Z. B. Patil College of Arts, Commerce & Science, Dhule.
phpawar31@gmail.com, 9423193364

Dr. Edmund P. Samuel, *Post-Doctoral Fellow*, Solar Cell and Aerosol Science Lab. Department of Mechanical Engineering Korea University
edsaedwin@rediffmail.com

Dr. Dinesh N. Sawant, *Scientist*, Organic Chemistry Division CSIR National Chemical Laboratory Pune (NCL Pune)
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