

## PERSONAL-PROFILE

1. **Full Name** :- Dr. Satish Anna Gangavane
2. **Name of Institute** :- Doodhsakhar Mahavidyalaya, Bidri.
3. **Name of University** :- Shivaji University, Kolhapur (Maharashtra)
4. **Qualification** :- M.Sc. , Ph. D.
5. **Designation** :- Associate Professor
6. **Department & Subject** :- Physics (Spectroscopy)
7. **Experience** :- U.G.-29 Years
8. **Director** :- Aadarsh Shikshan Sanstha's, Brilliant English Medium School, Khandala-Bavada. Dist- Satara.
9. **Vice-Chairman** :- Shri Doodhsakhar Shikshan Shevakanchi Sahakari Patasantha Bidri, ( From 2011-16 )
10. **Nationality** :- Indian
11. **Permanent Address** :- 'NALANDA' Plot No 20, Panditrao Jadhavnagar, Pachgaon. Tal- Karveer. Dist- Kolhapur- 416013
12. **Seminar, Conferences & Work-Shops Attended** :- 30
13. **Publications.**
  - i) **Published Papers in Referred Journals** :- 31
  - ii) **Papers presented in Conferences** :- 11
14. **Indian Patents submitted** :- 03
15. **Ph.D. thesis entitled** :-  
"STUDIES ON SURFACE DEFORMATION OF MATERIALS BY HOLOGRAPHIC INTERFEROMETRY TECHNIQUE"
16. **Minor Research Projects:**

"Studies on Surface Deformation of Materials By Holographic Interferometry Technique." University Grants Commission Bahadursha Zafar Marg New Delhi-110 002 11/02/2010 to 11/02/2012, Rs. 1,45,000/-(Rupees One Lakh Forty Five Thousand only)
15. **Recognition as a Research Guide for M. Phil and Ph. D.**
  - i) Ph.D. student :- 03
16. **Research Publication:-**
  - i) **Published Papers in Referred Journals:-**
    1. **S. A. Gangawane, S. D. Kamat, V. P. Malekar, V. J. Fulari and M. B. Dongare. "Characterization Of Cadmium Selenide Thin Films By Electrodeposition And its Holographic Study". Journal of Optics Vol. 39, Number 4, 167-174, 2010**
    2. **V.J. Fulari. V.P. Malekar, and S.A. Gangawane. "Measurement of Properties of Copper Telluride thin films using Holography", Progress in Electromagnetics Research C, Vol. 12, 53-64, 2010.**
    3. **S. A. Gangawane, S. D. Kamat, V. P. Malekar, V. J. Fulari. "Monitoring the Cadmium Sulfide thin films by double-exposure holographic interferometry technique", Asian Journal of Research in Chemistry Vol. 3, Issue 4, October-December 2010.**

4. S. A. Gangawane, S. D. Kamat, P.M. Kulal, V. J. Fulari. **“Preparation and Characterization of CdS Thin Films By Double Exposure Holographic Interferometry Technique”**, IWSSCGGC-2010 organized by CMET-Pune accepted for publication on **Bulletin of Material science** (Springer).
5. S. A. Gangawane\*, S. D. Kamat, P.M. Kulal, V. J. Fulari. **“Monitoring the Cadmium Chalcogenides (CdS, CdSe & CdTe) thin films by double-exposure holographic interferometry technique”**, IWSSCGGC-2010 organized by CMET-Pune accepted for publication on **Bulletin of Material science** (Springer).
6. S. A. Gangawane, P. M. Kulal, S. D. Kamat, V. J. Fulari. **“Studies on Surface Deformation of CdS, CdSe and CdTe Thin Films by Double Exposure Holographic Interferometry Technique”**. **Bionano frontier** (ISSN 0974-0678).
7. S. A. Gangawane, H. D. Dhaygude, V. J. Fulari, **“Double Exposure Holographic Interferometry Technique for Electrodeposited Cadmium Telluride Thin films”** Proceedings of 2<sup>nd</sup> National conference on Nanomaterials and Nanotechnology, 21-23 Dec. 2009, Dept. of Physics, University of Lucknow, U. P. **India Excel Publications** (ISBN 978-93- 80043-61-6).
8. S. A. Gangawane, H. D. Dhaygude, S. D. Patil, V. J. Fulari **“Surface deformation of cadmium telluride thin films by DEHI technique”** **Archives of Applied Science Research**, 3(1) 186-191, ISSN: 0975-508X (Release in February 2011).
9. P. M. Kulal, S. D. Kamat, S. A. Gangawane, V. J. Fulari **“Synthesis of Bi<sub>2</sub>Se<sub>3</sub> Thin Films By Electrodeposition and its Holographic Study”**, Paper presented at IWSSCGGC–2010 organized by CMET–Pune accepted for publication on **Bulletin of Material science** (Springer).
10. Shirish D. Kamat, S. A. Gangawane, H. D. Dhaigude, V. J. Fulari, **“Studies on structural and dielectric properties of Zn substituted PbTiO<sub>3</sub> ceramics”**, **Bianano Frontiers**, ICLAM-2010 (ISSN0974 - 0678).
11. Shirish D. Kamat, S. A. Gangawane, V. J. Fulari, **“Electric and Dielectric behaviour of PbZr<sub>0.6</sub>Ti<sub>0.4</sub>O<sub>3</sub> and PbSr<sub>0.6</sub>Ti<sub>0.4</sub>O<sub>3</sub> ceramics”**, **Asian Journal of Research in Chemistry** Vol.3 Issue 3, July - Sep. 2010 (ISSN 0974- 4169).
12. P. M. Kulal, S. A. Gangawane, V. P. Malekar, V. B. Prabhune S. J. Pawar & V.J. Fulari. **“Electrochemical synthesis of Sb<sub>2</sub> Se<sub>3</sub> thin films and its holographic study using He-Ne/laser”**, **Bionano frontier** (ISSN 0974 -0678).
13. Shirish D. Kamat, S. A. Gangawane, H. D. Dhaygude, V. J. Fulari **“studies on electrical and dielectric properties of nano sized PbZr<sub>0.9</sub>Ti<sub>0.1</sub>O<sub>3</sub> ceramics”**, Proceedings of 2<sup>nd</sup> National conference on Nanomaterials and Nanotechnology, 21 – 23 Dec. 2009, Dept. of Physics, University of Lucknow, U. P. **India Excel Publications** (ISBN 978-93-80043-61-6).
14. S. A. Gangawane\*, S. H. Han, V. J. Fulari. **“Effect of electron irradiation on the properties of CdSe thin films”**. 1<sup>st</sup> International conference on Physics of Materials and Materials based Device Fabrication (ICPM-MDF-2012) organized by Shivaji University, Kolhapur. India. Department of Physics January 17-19, 2012.
15. S. A. Gangawane\* , S. D. Kamat, P. M. Kulal, J. H. Kim, V. J. Fulari. **“Effect of electron irradiation on the Electrodeposited Cadmium sulfide thin films”** 1<sup>st</sup> International conference on Physics of Materials and Materials based Device Fabrication (ICPM-MDF-2012) organized by Shivaji University, Kolhapur. India. Department of Physics January 17-19, 2012.
16. V. J. Fulari, Shirish D. Kamat, S. A. Gangawane, B. R. Karche. **“Dielectric behaviour of PbTiO<sub>3</sub> Nanoceramics with Zn<sup>2+</sup> Ions as Dopants.”** 1<sup>st</sup> International conference on Physics of Materials and

Materials based Device Fabrication (ICPM-MDF-2012) organized by Shivaji University, Kolhapur. India. Department of Physics January 17-19, 2012.

17. S. D. Kamat, S. A. Gangawane, V. J. Fulari, “**Structural, Electrical & Dielectric Studies of  $Pb_{0.6}Sr_{0.4}TiO_3$  Ceramics**”, 1<sup>st</sup> International conference on Physics of Materials and Materials based Device Fabrication (ICPM-MDF-2012) organized by Shivaji University, Kolhapur. India. Department of Physics January 17-19, 2012.
18. S. A. Gangawane\*, S. D. Patil, V. J. Fulari, “**Surface Deformation of  $BaSrTiO_3$  By DEHI Technique**” **Advances in Applied Science Research**, 2014,5(1):197-200.ISSN: 0976-8610
19. S. A. Gangawane\* , S. D. Kamat, V. J. Fulari. “**Studies on surface deformation of  $BaSrTiO_3$  materials by double exposure holographic interferometry technique**” **International Journal of Applied Physics**
20. S. A. Gangawane “**Effect of Electron Irradiation on the Electrodeposited Cadmium Telluride Thin Films**” **International Research Journal of Science & Engineering**, 2017, Special Issue A1: 171-175 SJIF Impact Factor 4.11 ISSN : 2322-15. UGC Approved Journal No 63628
21. S. A. Gangawane\* , V. P. Malekar , V. J. Fulari. “**Surface Deformation of Cadmium Selenide Thin Films By DEHI Technique**” **Materials Today: Proceedings**, volume 23, Part 2, 2020, Pages :276-283.
22. V. P. Malekar, S. A. Gangawane\* V. J. Fulari “**Characterization and Holographic study of nanostructure Copper Selenide thin films grown at room temperature**” **Materials Today: Proceedings**, volume 23, Part 2, 2020, Pages :276-283.
23. Tanaji S. Patil<sup>1</sup>, Satish A. Gangawane<sup>2</sup>, Mansing V. Takale<sup>3</sup> “**A Review on  $Mn_3O_4$  and Its Composite Nanomaterials of Diverse Morphologies as an Electrode Material in Supercapacitors**” **International Journal of Scientific Research in Science and Technology**, volume 8, issue 2, Page Number:520-526, 24 April 2021.
24. S. A. Gangawane\* , V. P. Malekar , V. J. Fulari. “**Effect of Electron Irradiation on the Crystallite size, Grain size and Band gap energy of Electrodeposited Cadmium Sulfide thin films**” **Materials Today: Proceedings**, <https://doi.org/10.1016/j.matpr.2021.05.272>.
25. V. P. Malekar<sup>a</sup>, S. A. Gangawane<sup>b\*</sup> V. J. Fulari<sup>c</sup>. “**Structural and optical study of electrodeposited CuSe thin films**” **Materials Today: Proceedings**, <https://doi.org/10.1016/j.matpr.2021.05.057>.
26. S. A. Gangawane\* , V. J. Fulari. “**Characterization of cadmium sulfide thin films and its holographic study**” **Bulletin of Laser and Spectroscopy Society of India (BLSSI)**, Volume 25 (ISSN 2229-3752),
27. S. A. Gangawane\* , V. J. Fulari. “**effect of electron irradiation on the crystallite size, grain size, band gap energy & contact angle of electrodeposited CdSe thin films**” **Vidyawarta- International multilingual Research Journal**, issue-41, volume 09. Jan. to March 2022, (ISSN 2319-9318) Impact Factor 8.14,
28. Tanaji S. Patil, Raviraj S. Kamble, Rahul B. Patil, Mansing V. Takale and Satish A. Gangawane\* , **Int. J. Mater. Res.** 2024;115(1): 47-58, “**Enhanced Supercapacitive Performance of electrophoretically deposited nanostructured molybdenum-doped  $Mn_3O_4$  Thin films**”
29. Tanaji S. Patil<sup>1 id</sup>, V.P.Kothavale<sup>1</sup>, V.P. Malekar<sup>1</sup>, R.S. Kamble<sup>2</sup>, R.B. Patil<sup>3</sup>, K.V. Gurav<sup>4</sup>, M.V. Takale<sup>5</sup>, S. A. Gangawane<sup>6</sup> , **Journal of Electronic Materials**, <https://doi.org/10.1007/s11664-023-10765-4>, 2 october 2023, “**Effect of Nickel (Ni) Ion Doping on the Morphology and Supercapacitive Performance of  $Mn_3O_4$  Thin films**”
30. Tanaji S. Patil<sup>a\*</sup>, S.M. Nikam<sup>a</sup>, V.P.Kothavale<sup>a</sup>, R.S. Kamble<sup>b</sup>, R.B. Patil<sup>c</sup>, M.V. Takale<sup>d</sup>, S. A. Gangawane<sup>e</sup> , **Thin Solid Films** 792 (2024) 140252, [www.elsevier.com/locate/tsf](http://www.elsevier.com/locate/tsf), “**Structural,**

Optical, morphological, and Supercapacitive studies of electrophoretically deposited nanostructured of  $Mn_3O_4$  Thin films”

## ii) Awards

1. **International Scientist Award** on Engineering, Science and Medicine held on 06 & 07 Mar. 2021, in Goa, India, Organized by VDGGOOD Professional Association.
2. **Dr. APJ Abdul Kalam Lifetime Achievement National Award** for remarkable achievements in the field of “Teaching, Research and Publications” Organized by National Institute for Socio Economic Development (R) Bengaluru, India.on 17<sup>th</sup> April, 2021.
3. **Dr. B. R. Ambedkar International Award London, 2023.** For contribution to the social Works for the year 2023. Venue Ambedkar House, London.
4. **‘Mahatma Jotiba Phule Rastriy Aadarsha Shikshak Puraskar2023’ Samak shikshan Vichar manch & Kruti Foundation , Kolhapur.**

## iii. Indian Patents submitted: 03

1. **Mr. Satish Anna Gangawane**, Dr. Vijay Janardhan Fulari “Electrodeposited CdS nanorods and its holographic study” 17<sup>th</sup> day of Jan. 2011. ( submitted)
2. **Mr. Satish Anna Gangawane**, Dr. Vijay Janardhan Fulari, Mr. Shirish Dattaram Kamat “Studies on surface deformation of  $BaSrTiO_3$  materials by double exposure holographic interferometry technique” 17<sup>th</sup> day of Jan. 2011. ( submitted)
3. Dr. Vijay Janardhan Fulari, Mr. Shirish Dattaram Kamat, **Mr. Satish Anna Gangawane**, “Structural, Electrical and Dielectric Properties of Zn Substituted  $PbTiO_3$  Ceramics” 24-01-2011 ( submitted)

## iv. Papers presented in Conferences, Seminars, Workshops, Symposia etc.

1. **S. A . Gangawane**, S. D. Kamat, H.D. Dhaygude, S.S.Dhasade, V. J. Fulari “**Studies on surface deformation of Cadmium sulphide (CdS) thin films by Holographic Interferometry technique**”, National Symposium on advances in laser And spectroscopy-Feb.27-28(2009) Dr. Hari Sing Gaur Vishwavidyalaya, Sagar University, (M. P.)
2. **S. A. Gangawane**, S. D. Kamat, V. J. Fulari, “**Preparation and characterization of  $BaSrTiO_3$  ceramics**” National Seminar on Advanced Materials March 19-20(2010) Shivaji University, Kolhapur. Maharashtra.
3. **Satish A. Gangawane<sup>1\*</sup>**, Shirish D. Kamat<sup>1</sup>, Dr. V.J. Fulari <sup>1</sup> “**Studies on surface Deformation of Cadmium Selenide thin films by Holographic Interferometry technique**”. International conference on Nanomaterial and application Dec.9-11(2008), Shivaji University, Kolhapur.( Maharashtra).
4. **S. A. Gangawane**, V. P. Malekar, H. D. Dhaygude, S. D. Kamat, U. S. Raikar<sup>1</sup>, V. J. Fulari\* “**Charectorization of Cadmium Telluride Thin Films by Electrodeposition and it’s Holographiv Study**”. International Conference on Multifunctional Materials, (ICMM-2010) at Department of Physics Banaras Hindu University 6-9 December 2010 Organized by Banaras Hindu University, Varanasi, India.
5. **S. A. Gangawane<sup>\*</sup>**, S. D. Kamat, V. P. Malekar, V. J. Fulari. “**Effect of electron irradiation on the Crystallite size, Grain size and Contact angle of Electrodeposited Cadmium Telluride thin films**” 2<sup>st</sup> International conference on Physics of Materials and Materials based Device Fabrication (ICPM-MDF-2014) organized by Shivaji University, Kolhapur. India. Department of Physics.

6. V. P. Malekar , S. A. Gangawane\* , V. B. Prabhune, V. J. Fulari. **“Holographic Study of electrodeposited CuS, CuSe and CuTe thin films”** 2<sup>st</sup> International conference on Physics of Materials and Materials based Device Fabrication (ICPM-MDF-2014) organized by Shivaji University, Kolhapur. India. Department of Physics.
  7. S. A. Gangawane\* , S. D. Kamat, V. J. Fulari. **“Effect of electron irradiation on the Properties of CdTe Electrodeposited thin films”** National conference on ”Light and its Applications” 18, 19 march 2016, Jointly organized by Government college Quepen, Goa and Gogate Jogaleker college Ratnagiri,
  8. V. P. Malekar , S. A. Gangawane\* , V. J. Fulari. **“Holographic Interferometry Technique used for comparative study of CuS and CuSe Thin Films”** National conference on ”Light and its Applications” 18, 19 march 2016, Jointly organized by Government college Quepen, Goa and Gogate Jogaleker college Ratnagiri,
  9. S. A. Gangawane\* , V. J. Fulari, **“Effect of Electron Irradiation on the Properties of CdTe Electrodeposited Thin Films”** Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati organized a International Conference on Applied Nanotechnology and Nanoscience -2017 , from 07-09, December 2017.
  10. Shri Yashwantrao Patil Science College Solankur and The New College, Kolhapur Organized a International Conference on Materials and Environmental Science [ICMES -2018], from 07-08, December 2018. S. A. Gangawane<sup>1</sup>, V. P. Malekar<sup>2</sup> V. J. Fulari<sup>3</sup> **“Surface Deformation Of Cadmium Selenide Thin Films By DEHI Technique”**
  11. International Conference on Materials and Environmental Science [ICMES -2018]. Organized Shri Yashwantrao Patil Science College Solankur and The New College, Kolhapur , from 07-08, December 2018. **“Characterization and Holographic study of nanostructure Copper Selenide thin films grown at room temperature”**, V. P. Malekar<sup>1</sup> , S. A. Gangawane<sup>2</sup>, V. J. Fulari<sup>3</sup> .
  12. 3<sup>rd</sup> International e-Conference on Frontiers in Mechanical Engineering & nanoTechnology [ICFMET -2020]. Organized in collaboration by Sanjeevan Engineering & Technology Institute, Panhala & Shri Yashwantrao Patil Science College, Solankur from 27-28, November 2020. **“Effect of Electron Irradiation on the Crystallite size, Grain size and Band gap energy of Electrodeposited Cadmium Sulfide thin films”**, S. A. Gangawane<sup>1</sup>, V. P. Malekar<sup>2</sup> V. J. Fulari<sup>3</sup>.
  13. 3<sup>rd</sup> International e-Conference on Frontiers in Mechanical Engineering & nanoTechnology [ICFMET -2020]. Organized in collaboration by Sanjeevan Engineering & Technology Institute, Panhala & Shri Yashwantrao Patil Science College, Solankur from 27-28, November 2020. **“Structural and optical study of electrodeposited CuSe thin films ”**
  14. International Virtual Conference on Materials and Nanotechnology. jointly Organized by Guru Nanak College of Science, Ballarpur in Association with P. R. Pote (Patil) College of Engineering and Management, Amravati. from 29<sup>th</sup> and 30<sup>th</sup> April 2021, **“A Review on Mn<sub>3</sub>O<sub>4</sub> and Its Composite Nano materials of Different Morphologies as an Electrode Material in Supercapacitors”**
- v. **Attended National and International Conference / Seminars / Symposia / OP / RC / STC / FDP**
1. International conference on Advanced Materials and Applications, 2007, (ICAMA-2007) organized by Department of Physics, Shivaji University, Kolhapur during – 15-17 November, 2007.
  2. International conference on Nanomaterials Materials and Applications, 2008. Jointly organized by Department of Chemistry and Department of Physics, Shivaji University, Kolhapur during, Dec. 9<sup>th</sup> - 11<sup>th</sup>, 2008.

3. National Conference on Advanced Materials and Characterization, VIT University Vellore, Tamil Nadu (AMC-2008) July 23- 25<sup>th</sup> , 2008.
4. National Symposium on Advances in Lasers and Spectroscopy, 2009 Organized by . Dr. Hari Singh Gour Vishwavidyalaya, Sagar (M.P) Department of Physics & Electronics in association with Department of Chemistry sponsored by BRNS, CSIR, /DRAO, /DST, MPCST Feb, 27- Feb, 27-28<sup>th</sup> , 2009. and UGC.
5. International conference on Lasers and advanced Materials (ICLAM-2010) organized by Abasahed Garware College, Pune, India. Department of Physics March 6-8, 2010.
6. International Workshop and Symposium on the Synthesis and Characterisation of Glass/Glass-Ceramics (IWSSCGGC-2010)  
Organized by Centre for Materials for Electronic Technology (C-MET), Pune, India. 7<sup>th</sup> to 10<sup>th</sup> , July 2010
7. 1<sup>st</sup> International conference on Physics of Materials and Materials based Device Fabrication (ICPM-MDF-2012) organized by Shivaji University, Kolhapur. India. Department of Physics January 17-19, 2012.
8. One Day Workshop on B.Sc. Part II Revised syllabus Organised by S.M. Dr. Bapuji Salunkhe College, Miraj. On 6th August 2011 under the auspices of Shivaji University, Kolhapur.
9. One Day Workshop on Transit of Venus Organised by Department of Physics Shivaji University, Kolhapur and Bharat Gyan Vigyan Samuday. On 27 April 2012.
10. One Day National Seminar on Quality of Higher Education and Kakodkar Report. Organized by Shivaji University Teachers Association (SUTA) Kolhapur, on 2nd September, 2012.
11. National seminar on physics of materials and materials based device fabrication organized by dept. Of physics S.U. Kolhapur. 17 to 18, 2011
12. One Day Workshop on B.Sc. Part III( sem. VI) Revised syllabus Organised by Padmabhushan Dr. Vasantraodada Patil mahavidyalaya, Tasgaon, Sangli. On 10th August 2012 under the auspices of Shivaji University, Kolhapur.
13. One Day Workshop on B.Sc. Part II(Sem. III) Revised syllabus Organised by S.M. Dr. Bapuji Salunkhe College, Miraj. On 11th August 2014 under the auspices of Shivaji University, Kolhapur.
14. One Day Workshop on B.Sc. Part III(Semi. V, Paper No. IX, X, XI, XII) Revised syllabus Organised by Yashwantrao Chavan Warana Mahavidyalaya, Warananagar. On 22th August 2015 under the auspices of Shivaji University, Kolhapur.
15. Avishkar 2015-16, Research project competition at District level held at Tatysaheb Kore Institute of Engineering and Technology, Warananagar in Team Manager, 17<sup>th</sup> Dec. 2015
16. National conference on "Light and its Applications" 18, 19 March 2016, Jointly organized by Government College Quepen, Goa and Gogate Jogaleker College Ratnagiri,
17. Director, Adarsh Shikshan Sansthas, Brilliant English Medium School, Khandala. Dist- Satara.
18. Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati organized an International Conference on Applied Nanotechnology and Nanoscience -2017 , from 07-09, December 2017.
19. Shri Yashwantrao Patil Science College Solankur and The New College, Kolhapur Organized an International Conference on Materials and Environmental Science [ICMES -2018], from 07-08, December 2018.
20. Attended the Synopsis scrutiny committee meeting held on 15th February, 2019 at Department of Physics, S. U. Kolhapur.
21. **UGC STRIDE Online lecture Series Program-** organized by Department of Physics, Shivaji University , Kolhapur. During 7-10 April, 2021.

22. Attended the **National e-Conference** on ‘Materials for Emerging Technologies’ 2021 (MET-2021) Organized By School of Physical Science,P.A.H. Solapur University, solapur on 22nd March 2021.
23. Attended the **National Webinar** on Functionalized Nano Materials and Their Applications (FNMA-2021) organized by Post Graduate Research Centre, Department of Physics, Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati. Held on 9<sup>th</sup> to 10<sup>th</sup> February, 2021.
24. One Day online **Workshop** on New changed B.Sc. Part III CBCS curriculum of Physics Paper IX and XII Organised by Department of Physics, Rajarshi Chhatrapati Shahu College, Kolhapur sponsored by Shivaji University, Kolhapur. On 3rd February 2021.
25. One Day online **Workshop** on New changed B.Sc. Part III CBCS of Physics Paper X DSE-E2 Quantum Mechancs & and XVI DSE-F4 Energy Studies and Materials Science Organised by Department of Physics, & IQAC in collaboration with Shivaji University, Kolhapur. On 24-02-2021
26. One Day online **Workshop** on New changed B.Sc. Part III CBCS curriculum of Physics Paper IX and XII Organised by Department of Physics, Rajarshi Chhatrapati Shahu College, Kolhapur sponsored by Shivaji University, Kolhapur. On 3rd February 2021.
27. One day **International Webinar** on “ **Nanomaterials for Energy Generation and Smart Storage**” Organised by Department of Physics, Miraj Mahavidyalaya, Miraj & IQAC on 24<sup>th</sup> June, 2021
28. **Webinar on “First International Lightning Safety Day”** Organised by Department of Physics, Dr. Patangrao Kadam Mahavidyalaya, Sangli . held on 2<sup>nd</sup> July, 2021
29. One Day Workshop on National Education Policy 2020 & New curriculum design on 11<sup>th</sup> June 2023, organized by Shivaji University, Teachers Association (SUTA)
30. **Chairperson** for one day workshop on New Changed B.Sc.II, Curriculum of Physics Paper VII and Paper VIII (as per NEP), 20/10/2023

**vi) Attended Orientation course / Refresher course / STC / FDP**

1. UGC-Sponsored Orientation Programme Organised by Academic Staff College Sardar Patel University Vallabh Vidyanagar. Participated in 15th Orientation Programme from **2-7-2012 To 29-7-2012**.
2. UGC-Sponsored Refresher Programme Organised by Academic Staff College University of Kerala Kariavattom. Participated in **11-11-2014 To 01-12-2014**
3. UGC-Sponsored Refresher Programme Organised by Academic Staff College Department of Physics, Savitribai Pule Pune University, Pune.Participated in **02-07-2015 To 22-07-2015**
4. UGC Sponsored **STC** Programme Organised by Human Resource Development Centre, Saurashtra University, Rajkot. Participated in **12-02-2018 To 18-02-2018**
5. Online Course on “ Human Values” Organized by School of Nano Science & Technology held on **12 - 05 - 2020 To 10 - 06 – 2020** Shivaji University, Kolhapur.
6. Attended the Refresher course on “ **Institutional Preparedness for NAAC and NEP**” organized by Chhatrapati Shivaji College, Satara . During **21 September to 04 October 2022**.
7. One week online Faculty Development Program on ‘Traditional Indian Wisdom on Teaching & Learning’ **21 -26<sup>th</sup> Dec. 2020**, Central University, Rajasthan.
8. Online Course on “ Human Values” Organized by School of Nano Science & Technology , Shivaji University, Kolhapur **12 - 05 - 2020 To 10 - 06 – 2020**.
9. Faculty Development Programme on ” Evolution from offline to Online Teaching” **30 May 2020 To 03 June 2020**, Satish Pradhan Dnyanasadhana College, Thane. University of Mumbai & Yashwantrao Chavan Maharashtra Open University, Nashik.