



## BHARATI VIDYAPEETH'S COLLEGE OF ENGINEERING, KOLHAPUR

FOUNDER CHANCELLOR  
**Dr. Patangrao Kadam**  
M.A., LL. B., Ph. D.

Accredited by NAAC With 'A' Grade  
Approved by AICTE, New Delhi & Affiliated to Shivaji University, Kolhapur  
Near Chitranagari, Kolhapur - 416013 (MS)  
DTE INSTITUTE CODE : EN-6288  
Tel.No.: (0231) 2638893, 2638894, Fax : 2636050  
Web : <http://coekolhapur.bharatividyaapeeth.edu> E- mail : [coekolhapur@bharatividyaapeeth.edu](mailto:coekolhapur@bharatividyaapeeth.edu)

PRINCIPAL  
**Dr. Vijay Ghorpade**  
M.E., Ph. D. (Computer)

## NAAC SSR CYCLE- 2



<b>Criterion 3</b>	<b>Research, Innovations and Extension</b>
<b>Key Indicator 3.2</b>	<b>Innovation Ecosystem</b>
3.2.2 Number of workshops/seminars/conferences including on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship conducted during the last five years	

**Seminars: Impact Lecture Series on 'Innovation & Intellectual Property Rights Awareness'**

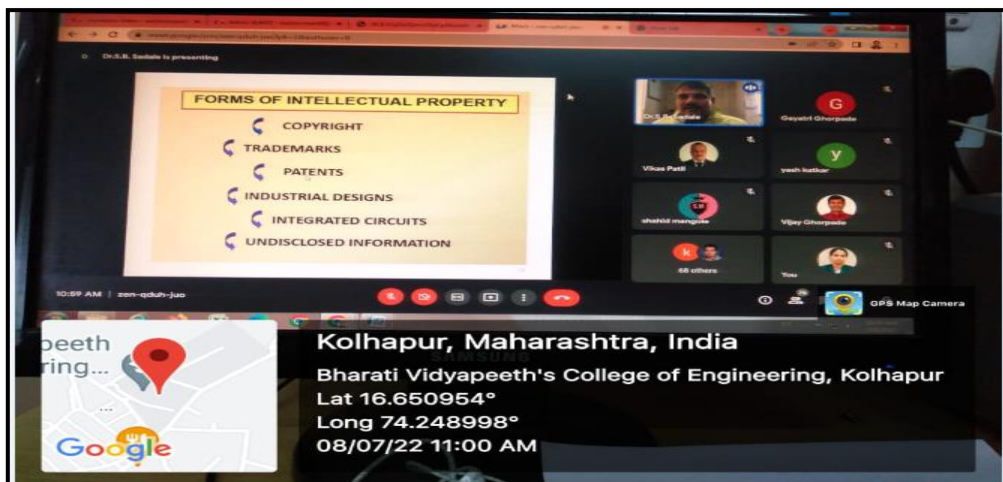


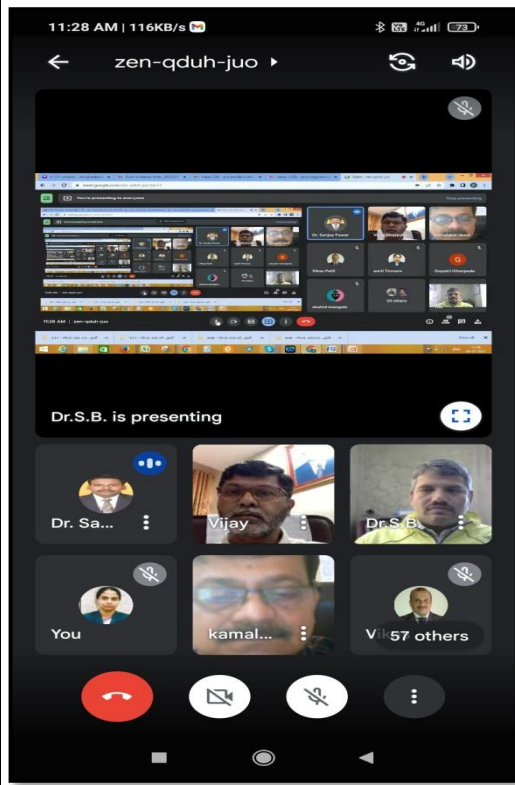
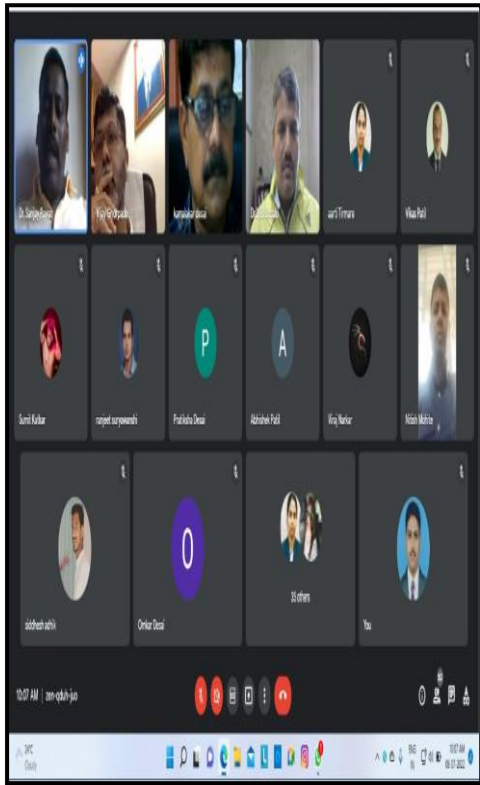
## BHARATI VIDYAPEETH'S COLLEGE OF ENGINEERING, KOLHAPUR

- **Organizing Department** : Electronics & Telecommunication Engineering
- **Name of Activity** : Impact Lecture Series on “Innovation and Intellectual property rights awareness”
- **Date of Activity** : 8<sup>th</sup> July 2022
- **No. of Participants** : 97
- **Participants From** : Faculty TY students of college.
- **Resource Person** : Dr. S. B. Sadale
- **Details of Activity** : Department of Electronics & Telecommunication organized Impact lecture series sponsored by MoE'S Innovation Cell (MIC) AICTE, New Delhi.

An online session on “Innovation and Intellectual property rights awareness” was scheduled on 8<sup>th</sup> July 2022 from 10.00 a.m to 11.30 a.m for faculty third year students of college. Resource person for same was Dr. S. B. Sadale Director IPR Shivaji University Kolhapur. This session include introduction Intellectual property rights and importance regarding Innovation in today life.

- **Outcome of Activity** : Students are gained Knowledge about IPR Innovation and able to understand importance of innovation. This lecture series is beneficial to encourage students for Innovation and IPR rather than accepting conventional Job.
- **How it Bridges gap between Industry and Academia:** Organizing such sessions will be helpful to students to gain knowledge about new trends in market
- **Photo:**





**Mrs. A. H. Tirmare**  
**Co-Ordinator**

**Dr. S. S. Pawar**  
**IIC Coordinator**

**Dr. V. R. Ghorpade**  
**Principal**



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PRINCIPAL

**Dr. Vijay Ghorpade**

M.E., Ph. D, (Computer)

Ref. No. BV/COEK / 148 / 2022 -20 23

Date : 07/07/2022

To,

Dr. S.B. Sadale,

Director IPR,

Shivaji University, Kolhapur.

**Subject: Invitation as a Resource Person.**

Dear Sir,

Department of Electronics & Telecommunication Engineering of Bharati Vidyapeeth's College of Engineering, Kolhapur has organized Online Impact lecture series on 'Innovation and Intellectual Property Rights Awareness' under Institution Innovation Council (IIC) sponsored by MoE's Innovation Cell (MIC), AICTE, New Delhi. This session is scheduled on 8<sup>th</sup> July 2022 from 10.00 a.m. to 11.30 a.m. for Third Year student of college.

It's our privilege to invite you as a Resource Person for this session and enlighten our students with your valuable guidance. We hope that you will accept our invitation and cooperate.

Thanks & Regards

**Dr. V. R. Ghorpade**

PRINCIPAL



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**FOUNDER & CHANCELLOR**  
**Dr. Patangrao Kadam**  
M.A., LL. B., Ph. D.

**PRINCIPAL**  
**Dr. Vijay Ghorpade**  
M.E., Ph. D. (Computer)

**Out Ward: - BV/COEK/ 1 5 0 /2021-22 NAAC- "A" Grade**

**Date:- 10-7-22**

To,  
Dr.S.B.Sadale  
Director IPR  
Shivaji University  
Kolhapur.

**Subject:** Thanking letter

Dear Sir,

We would like to extend our warm thanks to you for conducting session on "Innovation and Intellectual property rights awareness" under IIC Impact lecture series on 8<sup>th</sup> July 2022 for third and final year students. We hope your valuable guidance will be beneficial to students for understanding importance of Innovation and IPR.

We genuinely thank you once again for the support and time given by you and sincerely hope that you would continue to extend your valuable support and cooperation in our future initiatives as well.

Dr.Vijay. R.Ghorpade  
Principal

# Curriculum Vitae

**Dr. Shivaji Babaso Sadale**

M.Sc., Ph.D.



**Assistant Professor**

**JSPS Fellow,**

**Marie Curie Fellow**

**Department of Technology,**

**Shivaji University,**

**Kolhapur-416 004**

**Maharashtra, India**

## Teacher Profile

1. **Name of the Faculty: Dr. S. B. Sadale**  
Assistant Professor, Department of Technology,  
Shivaji University, Kolhapur, M.S. India-416 004



2. **Educational Qualifications:**

Sr. No.	Examination Passed	Subject with specialization	Year of Passing	Name & Address of the University awarding Certificate / Degree
1.	B.Sc.	Physics	1997	Shivaji University, Kolhapur
2.	D.C.P.	Programming languages, database	1998	Shivaji University, Kolhapur
3.	M.Sc.	Physics (Materials Science)	2000	Shivaji University, Kolhapur
4.	B.Ed.	Sci. & Mathematics Teaching Methodology	2001	Shivaji University, Kolhapur
5.	Ph. D.	Physics	2006	Shivaji University, Kolhapur

3. **Research Interest: Materials Science, Nanomaterials, Energy Technologies, Organic Electronic and Lighting Devices**

4. **Teaching Experience: Total : 3 Years**

**UG:**

Designation	From	To	Years	Classes taught	Name & Address of the Institution
Lecturer	July 2008	March 2009	9 months	Physics	G. H. Rasoni Institute of Engineering & Technology, Pune, Maharashtra, India.
Assistant Professor	02/04/2012	Till the date	2 Years	B.Tech.	Dept. of Technology, Shivaji University, Kolhapur

**PG: 2 Years**

Designation	From	To	Years	Classes taught	Name & Address of the Institution
Assistant Professor	02/04/2012	Till the date	2 Years	M.Tech.	Dept. of Technology, Shivaji University, Kolhapur
Assistant Professor	01/04/2014	31/03/2015	1 Year	Masters in Electronics and Electrical Engineering	Department of Electronics and Electrical Engineering, Keio University, <b>Japan</b>

**5. Other Work Experience: Total : 11 Years of Research Experience**

Designation	From	To	Years	Name & Address of the Institution
Junior Research Fellow (J.R.F.)	14/08/2001	14/08/2003	2 Years	Department of Physics, Shivaji University, Kolhapur, India
Senior Research Fellow (S.R.F.)	15/08/2003	31/08/2004	1 Years	Department of Physics, Shivaji University, Kolhapur, India
CSIR-S.R.F.	01/04/2005	31/08/2006	16 months	Department of Physics, Shivaji University, Kolhapur, India
POST DOCTORAL FELLOW	01/09/2005	31/01/2007	17 months	Groupe d'Etude de la Matière Condensée, C.N.R.S., 1, place Aristide Briand, 92195 Meudon CEDEX, <b>France</b>
Marie Curie Fellow	01/03/2007	31/12/2007	10 months	Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology (FORTH), Hellas, <b>Greece.</b>
JSPS Fellow	01/04/ 2009	30/04/2011	2 Years	Department Of Electronic Science and Engineering, Kyoto University, <b>JAPAN.</b>
Researcher	01/05/2011	31/03/ 2012	1Year	Department Of Electronic Science and Engineering, Kyoto University, <b>JAPAN.</b>

**6. Research Guidance**

- **UG Programs: B.Tech. and B.Sc.**



**One INSPIRE Awardee working for project under my Mentorship**

- PG Programs:M.Tech. and M.Sc.
- M.Sc. Projects: 10
- M.Phil.:Nil
- Ph.D.:Nil

**7. Research Publications: 36**

**A) Research papers published:**

Year	International Journals	National Journals	University. State level Journals	Seminar proceeding etc.	Total
2009-10	<b>02</b>				<b>01</b>
2010-11	<b>03</b>				<b>03</b>
2011-12	<b>01</b>			<b>02</b>	<b>03</b>
2012-13	<b>03</b>				<b>03</b>
2013-14	<b>01</b>			<b>01</b>	<b>02</b>
<b>TOTAL</b>	<b>10</b>				<b>12</b>

**i) Citation data**

SCOPUS Report (Numbers Only)			Google Scholar Citation Report (Numbers only)				Researchgate.net Report	No. other Pub.
Pub.	Citations	<i>h</i> -index	Pub.	<i>h</i> -index	<i>i</i> 10-Index	Citations	Impact Points	
<b>29</b>	<b>355</b>	<b>12</b>	<b>35</b>	<b>14</b>	<b>17</b>	<b>437</b>	<b>28.10</b>	

**ii) List of publications:**

**A) International Peer Reviewed Publications**

Sr. No.	Name of Author/s	Year	Title of the Paper	Name of the journal	Vol.	Page Nos.	Impact Factor	citation
<b>1</b>	P. S. Patil, E. A. Ennaoui, S. Fiechter, H. Tributuch & <b>S. B. Sadale</b>	2003	Formation of Textured WS <sub>2</sub> thin films by Van Der Waals Rheotaxy Process and Their Photoactivity.	Indian Journal of Pure and Applied Physics	41	369 - 373		
<b>2</b>	P.S. Patil, R.K. Kavar, <b>S. B. Sadale</b> , and P.S. Chigare	2003	Properties of spray deposited tin oxide thin films derived from tri-n-butyltin acetate.	Thin Solid Films	437	34 - 44		

3	P.S. Patil, P.S. Chigare, <b>S. B. Sadale</b> , and R.K. Kawar	2003	Thickness dependent properties of sprayed iridium oxide thin films.	Materials Chemistry and Physics	80	667 - 675		
4	P. S. Patil, P. V. Kumbhar, M. M. Jawale, P. S. Shinde, <b>S. B. Sadale</b> and P. S. Chigare	2003	Growth of Undoped SnO <sub>2</sub> Thin Films from Tri-Butyltin Acetate and Their Electroanalysis:Effect of Substrate Temperature.	Proceedings of the12 <sup>th</sup> Inter. Workshop on The Physics of Semi. Devices (IWPSD)	1	146 - 148		
5	<b>S.B.Sadale</b> and P.S.Patil	2004	Nucleation and Growth of Bismuth Thin Films onto Fluorine Doped Tin Oxide (FTO) Coated Conducting Glass Substrates from Nitrate Solutions.	Solid State Ionics	167/3-4	273 - 283		
6	P.S. Patil, <b>S.B. Sadale</b> and R.K. Kawar	2004	Electroanalysis of Spray Deposited Pristine Iridium Oxide and Molybdenum Doped Iridium Oxide Thin Film Coatings and their Electrochromism.	Proceedings of Int. Conference on Electroanal. Chemistry & Allied Topics (ELAC-2004), at, Goa	1	277 - 282		
7	P. S. Patil, A. R. Patil, S. H. Mujawar and <b>S. B. Sadale</b>	2005	Properties of Spray Deposited Niobium Oxide Thin Films.	Journal of Materials Science	16-1	35 - 41		
8	P. S. Patil, R. K. Kawar and <b>S. B. Sadale</b>	2005	Electrochromism in Spray Deposited Iridium Oxide Thin Films.	Electrochimica Acta	50	2527 - 2532		
9	P. S. Patil, R. K. Kawar and <b>S. B. Sadale</b>	2005	Effect of Substrate Temperature on Electrochromic Properties of Spray Deposited Ir-Oxide Thin Films.	Applied Surface Science	249	367 - 374		
10	P. S. Patil, S. H. Mujawar, A. I. Inamdar and <b>S. B. Sadale</b>	2005	Electrochromic Properties of Spray Deposited TiO <sub>2</sub> -doped WO <sub>3</sub> Thin Films.	Applied Surface Science	250	117 - 123		
11	P.S. Patil, S. H. Mujawar, A. I. Inamdar, P.S.	2005	Structural, Electrical and Optical Properties of TiO <sub>2</sub> doped WO <sub>3</sub>	Applied Surface Science	252/5	1643 - 1650		

	Shinde, H.P. Deshmukh and <b>S. B. Sadale.</b>		Thin Films.					
12	<b>S.B. Sadale</b> and P.S. Patil	2006	Synthesis of TYPE-I Textured Tungsten Disulfide Thin Films on quartz substrate.	Journal of Crystal Growth	286	481 – 486		
13	P.S. Patil, R.K. Kawar, <b>S.B. Sadale</b> , A.I. Inamdar and S.S. Mahajan	2006	Promotion of Electrochro. in Spray Deposited Molybdenum Oxide Doped Iridium Oxide Thin Films.	Solar Energy Materials and Solar Cells	90	1629 – 1639		
14	<b>S.B. Sadale</b> and P.S. Patil	2006	Synthesis and characterization of type-II textured tungsten disulfide thin films by vdWR process with Pb interfacial layer as texture promoter.	Journal of Crystal Growth	290	363 – 368		
15	P. S. Patil, R. K. Kawar, <b>S. B. Sadale</b> , A. I. Inamdar, H.P. Deshmukh	2006	Properties of Mixed Molybdenum Oxide-Iridium Oxide Thin Films Synthesized by Spray Pyrolysis.	Applied Surface Science	252	8371 – 8379		
16	P. S. Patil, R. K. Kawar and <b>S. B. Sadale</b>	2006	Effect of film thickness on Electrochromic activity of Spray Deposited Iridium Oxide Thin Films.	Materials Chemistry and Physics	99/2 -3	309 - 313		
17	<b>S.B. Sadale</b> , S. R. Barman and P.S. Patil	2007	Formation of $\perp c$ texture of tungsten disulfide thin films with nickel.	Applied Surface Science	253	3489 - 3495		
18	<b>S.B. Sadale</b> and P. S. Patil	2007	Preparation and Characterization of Type-II Textured $WS_2$ Thin films on Bi Coated Quartz Substrates.	Thin Solid Films	515	2935 - 2942		
19	P.S. Patil, P.S. Chigare, <b>S.B. Sadale</b> , S.H. Mujawar and P.S. Shinde.	2007	Electrochemical investigations on spray deposited tin oxide thin films.	Solar Energy Materials and Solar Cells	91	859 - 863		
20	A.I. Inamdar, S.H. Mujawar, <b>S.B. Sadale</b> , A.C.	2007	Electrodeposited zinc oxide thin films: Nucleation and growth	Solar Energy Materials and Solar Cells	91	864 - 870		

	Sonavane, M.B. Shelar, P.S. Shinde and P.S. Patil		mechanism.					
21	P.S. Patil, <b>S. B. Sadale</b> , S.H. Mujawar, P.S. Shinde and P.S. Chigare	2007	Synthesis of electrochromic tin oxide thin films with faster response by spray Pyrolysis.	Applied surface Science	253	8560 – 8567		
22	<b>S.B. Sadale</b> , S.M. Chaqour, O. Gorochoy, and M. Neumann-Spallart	2008	Photoelectrochemical and physical properties of tungsten trioxide films obtained by aerosol pyrolysis.	Journal Materials Research Bulletin	43-6	1472 - 1479		
23	P.S. Shinde, <b>S.B. Sadale</b> , P.S. Patil, P.N. Bhosale, A. Brüger, M.N. Spallart, C.H. Bhosale	2008	Photoelectrochemical and physical properties of spray deposited titanium oxide thin films	Solar Energy Materials and Solar Cells	92-3	283 - 290		32
24	P. Horvath, M. Sucheá, <b>S.B. Sadale</b> , S. Christoulakis, R. Voicu, C.Tibeica, I. Bineva, R.Muller, T. Kitsopoulos and G. Kiriakidis	2008	ZnO thin films for cantilever coatings: structural and mechanical properties, observations of photoplastic effect	Sensor letters	6	1–6		
25	<b>S.B. Sadale and</b> M. Neumann-Spallart	2010	Photoelectrocatalysis with Drop-Cast Tungsten Trioxide Films	Journal of New Materials for Electrochemical Systems	13-2	127-131		
26	<b>Shivaji B. Sadale</b> , Kei Noda, Kei Kobayashi, Hirofumi Yamada and Kazumi Matsushige,	2010	Photocatalytic oxidation of methanol and production of H <sub>2</sub> .	The 15 <sup>th</sup> International Conference on TiO <sub>2</sub> Photocatalysis :Fundamentals and Applications				

				(TiO <sub>2</sub> -15), San Diego, California, USA.				
27	<b>Shivaji B. Sadale, Kei Noda, Kei Kobayashi, and Kazumi Matsushige</b>	2011	Hydrogen production from gas phase photocatalytic decomposition of methanol using Pt-supported nanocrystalline WO <sub>3</sub> films	physica status solidi-c	8-2	552–554		
28	<b>Shivaji B. Sadale, Kei Noda, Kei Kobayashi, Hirofumi Yamada and Kazumi Matsushige</b>	2011	Intricate Photocatalytic Decomposition Behavior of Gaseous Methanol with Nanocrystalline Tungsten Trioxide Films in High Vacuum	Applied Surface Science	257	1030 – 10305		
29	<b>S. B. Sadale, K. Noda, K. Kobayashi, H. Yamada and K. Matsushige</b>	2011	Gas phase photocatalysis with WO <sub>3</sub> and composite WO <sub>3</sub> -TiO <sub>2</sub> thin films	15 <sup>th</sup> International Conference On Thin Films (ICTF-15), Kyoto, Japan	Won the Award for Encouragement of Research in Thin Films			
30	<b>S. B. Sadale, K. Noda, K. Kobayashi, H. Yamada &amp; K. Matsushige</b>	2012	Real-time Investigation On Photocatalytic Oxidation of Gaseous Methanol with Nanocrystalline WO <sub>3</sub> -TiO <sub>2</sub> Composite Films	Thin Solid Films	520/10	3847 - 3851		
31	A. B. Kolekar A.B. Dayte C. H. Bhosale <b>S.B. Sadale</b>	2013	BIO-FUEL-DI-ETHYL ETHER (DME): A REVIEW	J. of Int. Academic Research for Multidisciplinary	1-3	136 - 142		
32	D S. Dalavi, R S. Devan, R.A. Patil, R. S. Patil, Y.-R.Ma, S. B. Sadale, InY. Kim, Jin-H.Kim and P. S. Patil	2013	Efficient Electrochromic performance of nano particulate WO <sub>3</sub> thin films	Journal of Materials Chemistry C	1 (23)	3722 - 3728		

33	S. S. Mali, H. Kim, C. Su Shim, W. Ri Bae, N. L. Tarwal, S. B. Sadale, c P.S. Patil, Jin-H. Kim and C.K.Hong	2013	Single-step synthesis of 3D nanostructured TiO <sub>2</sub> as a scattering layer for vertically aligned 1D nanorod photoanodes and their dye-sensitized solar cell properties	CrystEngComm	15	5660 – 5667		
34	N.L. Tarwal, K.V. Gurav, S.H. Mujawar, S.B. Sadale, K.W. Nam, W.R. Bae, A.V. Moholkar, J.H. Kim, P.S. Patil, J.H. Jang	2014	Photoluminescence and photoelectrochemical properties of the spray deposited copper doped zinc oxide thin films	Ceramics International	40-6	7669 – 7677	1.968	

B) Monographs: Nil

C) Chapters in Books: 02

1	<b>Shivaji B. Sadale</b> and George Kiriakidis	2009	Material Growth and Fundamental Material Characterization Techniques	NATO Science for Peace and Security Series C: Environmental Security, Sensors for Environment, Health and Security, published by <b>Springer</b>	I, 47-66,
2	George Kiriakidis, Konstantinos Moschovis and <b>Shivaji B. Sadale</b>	2009	Systems and Set-Ups for Effective Sensing Response Applications	NATO Science for Peace and Security Series C: Environmental Security, Sensors for Environment, Health and Security, published by <b>Springer</b>	I, 159 - 178

D) Edited Books :nil

E) Books with ISBN with details of publishers: Nil

F) Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

## G) Details of patents and income generated :02

A) LIST OF PATENTS :02					
Sr. No.	Name of Author/s	Year of Publication	Title of the Patent	Name of the Patent Office	Patent number
1	S.B.Sadale and P.S.Patil	2004	AN IMPROVED SPRAY PYROLYSIS PROCESS FOR THE PREPARATION OF GOOD QUALITY THIN FILM SEMICONDUCTING COATINGS AND APPARATUS THEREFOR.	Indian patent	Granted, Patent no.:214163
2	S.B.Sadale and P.S.Patil	2005	RHEOTAXIAL PROCESS FOR THE PREPARATION OF TYPE-II TEXTURED TUNGSTEN DISULFIDE THIN FILMS EXHIBITING A STACKING OF RHOMBOHEDRAL POLYMERIC CRYSTALLITES (3R) USING LEAD SULFIDE (PbS) INTERLAYER.	Indian patent	Patent no.:206142

## 8. Conferences Attended

### ● National

#### ▪ Paper Presentation

1. Presented a poster in the 10<sup>th</sup> AGM of the Material Research Society of India (MRSI) at the NCL, Pune, INDIA during Feb.10-12, 2005.
2. Participated in E-MRS-spring meeting, Strasbourg, France, May 28<sup>th</sup> to June 1<sup>st</sup>, 2007.
3. Presented a paper entitled, "Hydrogen production using nanocrystalline WO<sub>3</sub> films loaded with platinum with gas phase photocatalysis", in the 57<sup>th</sup> Spring Meeting of The Japan Society of Applied Physics (JSAP), March 17 - 20, 2010 at Tokai University, Kanagawa, Japan.
4. Participated and presented a paper entitled, "Hydrogen Production from Gas Phase Photocatalytic Decomposition of Methanol using Pt. supported Nanocrystalline WO<sub>3</sub> Films", in "The 37<sup>th</sup> International Symposium on Compound Semiconductors" (ISCS, 2010) May 31 - June 4, 2010, Takamatsu Symbol Tower, Kagawa, Japan.
5. Presented a paper entitled, "Photocatalytic Decomposition of Gaseous Methanol with Nanocrystalline Tungsten Trioxide Films in High Vacuum", in 3<sup>rd</sup> International Symposium on Transparent Conductive Materials (TCM-2010) at Crete, Greece during 17-21 October, 2010
6. Presented a paper entitled, "Hydrogen Production Using Gas Phase Photocatalysis With Nanocrystalline TiO<sub>2</sub>-WO<sub>3</sub> Composite Films in The 15<sup>th</sup> International Conference on TiO<sub>2</sub> Photocatalysis: Fundamentals and Applications (TiO<sub>2</sub>-15), November 15-18, 2010, San Diego, California, USA.

7. Presented a paper entitled “Real-time Investigations on Photocatalytic Oxidation of Gaseous Methanol with Nanocrystalline  $\text{WO}_3\text{-TiO}_2$  Composite Films in 7<sup>th</sup> International Symposium on Transparent Oxide thin Films for Electronics and Optics (TOEO-7), at International Conference Center, Waseda University, Tokyo, Japan during March 14-16, 2011.
8. Presented a paper entitled, “Gas phase photocatalysis with  $\text{WO}_3$  and composite  $\text{WO}_3\text{-TiO}_2$  thin films in The 15<sup>th</sup> International Conference on Thin Films (ICTF-15), during November 8-11, 2011, at Kyoto, JAPAN [Won the Award for Encouragement of Research in Thin Films].
9. Presented a poster entitled ““Gas phase photocatalytic oxidation with nanostructured metal oxide thin films”, in the International Conference on “New Age Science and Technology for Sustainable Development “ and 3<sup>Rd</sup> Annual Conference of Indian JSPS Alumni Association”, Organised jointly by CSIR-National Environmental Engineering Research Institute and Indian JSPS Alumni Association, Toyo University, Japan during August 6-7, 2012 at Nagpur, India.

▪ **Workshops attended (National)**

1. Participated in the National Workshop on Advanced Methods for Materials Characterization (NWMC) held at Multipurpose Hall, **BARC TSH, Anushaktinagar, Mumbai, INDIA**, during October 11-15, 2001.
2. Participated in National Symposium on Recent Advances in Renewable Energy Technologies (RARE-T-2002), held at Shivaji University, Kolhapur, Maharashtra, India, during the period August 13-15, 2002.
3. Attended two days National Workshop on Industrial Electroplating held at Coimbatore, Tamilnadu, India, during a period 12-13 July 2003.
4. Participated in CAMPIGN ON UNIVERSITY RESEARCH AND TRAINING (COURT) held at Shivaji University, Kolhapur, Maharashtra, India, during 26<sup>th</sup> and 27<sup>th</sup> June 2003.
5. Participated in National Seminar on Materials Processing and Characterization Techniques, (NS-MPCT) held at Department of Physics, Shivaji University, Kolhapur, Maharashtra, India, 28-29, March 2005.
6. Participated in One Day workshop “Review of Applied Physics Syllabus-2008”, on 2<sup>nd</sup> January 2009 at Sinhgad College of Engineering, Pune 4110 41.
7. Participated in training course, “Introduction to COMSOL Multiphysics (ver 4.4), on 20<sup>th</sup> February 2014, conducted by COMSOL.



● International

i. Paper Presentation List of paper/poster presented

Sr. No.	Name of Author/s	Year	Title of the Paper	Name of symposia / conference
1.	<b>S.B. Sadale, M. Suche, P. Horvath S. Christoulakis, R. Voicu, C. Tibeica, I. Bineva, R. Muller, T. Kitsopoulos and G. Kiriakidis</b>	2007	ZnO thin films for cantilever coatings: structural and mechanical properties, observations of photoplastic effect	E-MRS-spring meeting, Strasbourg, France
2.	<b>S.B.Sadale, G. Kiriakidis</b>	2008	Ultra sensitive Ozone sensors based on nanostructures of ZnO	International conference on nanomaterials and applications (ICNAMA-2008)
3.	<b>Shivaji B. Sadale, Kei Noda, Kei Kobayashi, and Kazumi Matsushige</b>	2010	Hydrogen production using nanocrystalline WO <sub>3</sub> films loaded with platinum with gas phase photocatalysis	57 <sup>th</sup> Spring Meeting of The Japan Society of Applied Physics (JSAP), March 17 - 20, 2010 at Tokai University, Kanagawa, <b>Japan.</b>
4.	<b>Shivaji B. Sadale, Kei Noda, Kei Kobayashi, and Kazumi Matsushige</b>	2010	Hydrogen Production from Gas Phase Photocatalytic Decomposition of Methanol using Pt. supported Nanocrystalline WO <sub>3</sub> Films	The 37 <sup>th</sup> International Symposium on Compound Semiconductors” (ISCS, 2010) at Takamatsu Symbol Tower, Kagawa, <b>Japan.</b>
5.	<b>Shivaji B. Sadale, Kei Noda, Kei Kobayashi, and Kazumi Matsushige</b>	2010	Photocatalytic Decomposition of Gaseous Methanol with Nanocrystalline Tungsten Trioxide Films in High Vacuum	3rd International Symposium on Transparent Conductive Materials (TCM-2010) at Crete, Greece during 17-21 October, 2010
6.	<b>Shivaji B. Sadale, Kei Noda, Kei Kobayashi, and Kazumi Matsushige</b>	2010	Hydrogen Production Using Gas Phase Photocatalysis With Nanocrystalline TiO <sub>2</sub> -WO <sub>3</sub> Composite Films	The 15 <sup>th</sup> International Conference on TiO <sub>2</sub> Photocatalysis: Fundamentals and Applications (TiO <sub>2</sub> -15), San Diego, California, <b>USA.</b>
7.	<b>S. B. Sadale, K. Noda, K. Kobayashi, H. Yamada &amp; K. Matsushige</b>	2011	Real-time Investigations on Photocatalytic Oxidation of Gaseous Methanol with Nanocrystalline WO <sub>3</sub> -TiO <sub>2</sub> Composite Films	7 <sup>th</sup> International Symposium on Transparent Oxide thin Films for Electronics and Optics, at International Conference Center, Waseda University, <b>Tokyo, Japan</b>
8.	<b>S. B. Sadale, K. Noda, K. Kobayashi, H. Yamada &amp; K. Matsushige</b>	2011	Gas phase photocatalysis with WO <sub>3</sub> and composite WO <sub>3</sub> -TiO <sub>2</sub> thin films	The 15 <sup>th</sup> International Conference on Thin Films (ICTF-15), at Kyoto, <b>JAPAN</b>
9.	<b>S. B. Sadale</b>	2012	Gas phase photocatalytic	International Conference on “New

			oxidation with nanostructured metal oxide thin films	Age Science and Technology for Sustainable Development “and 3 <sup>rd</sup> Annual Conference of Indian JSPS Alumni Association”, at Nagpur, India.
10.	S. B. Sadale	2014	Effect of ZnS surface treatment on solar cell performance of ZnO/CdS core-shell nanorod array photoelectrode	2 <sup>nd</sup> International Conference on “Physics of Materials and Materials Based Device Fabrication (ICPM-MDF-2014)”

### Workshops attended (International)

1. Attended Summer School of GOSPEL (General Olfaction and Sensing Projects on a European Level), 30<sup>th</sup> September to 5<sup>th</sup> October 2007. Europa Beach Hotel, Crete, Greece.
2. Kyoto workshop on Recent Progress in Advanced Probe Microscopy and Spectroscopy, March 16, 2010, Katsura campus, Kyoto University, **Japan**.
3. “CONFERENCE AND SCHOOL ON NUCLEATION AGGREGATION AND GROWTH”, at JNCASR, Bengaluru, India, 26<sup>th</sup> July to 6<sup>th</sup> August 2010.
4. TWO DAY WORKSHOP on “Research Writings, Ethics, Plagiarism and Publishability”, held during 26<sup>th</sup> -27<sup>th</sup> July 2012 at Shivaji University, Kolhapur, India.
5. A Workshop on “**Brain Storming Session on Application of Sustainable Development in the State of Maharashtra**”, 26<sup>th</sup> & 27<sup>th</sup> November, 2012, jointly Organized by - Maharashtra Academy of Sciences (MASc), and Shivaji University, Kolhapur (SUK), Sponsored by and Rajiv Gandhi Science & Technology Commission (RGSTC)
6. A Workshop on, “Engineering Thermodynamics”, under the National Mission on Education through ICT (MHRD, Gov. of India) at Shivaji University, Kolhapur on 11/12/2012 and 11/12/2012.
7. A Workshop on, “Empowerment of Students and Teachers through Synchronous and Asynchronous Instructions under the National Mission on Education through ICT (MHRD, Gov. of India) at Shivaji University, Kolhapur on 02/02/2013 and 09/02/2013.
8. A Workshop on, “DATABASE MANAGEMENT SYSTEMS”, under the National Mission on Education through ICT (MHRD, Gov. of India) at Shivaji University, Kolhapur on 21/05/2013 and 31/05/2013.

9. International workshop on “**Nanotechnology and Advanced Functional Materials (NTAFM 2013)**” organised by Materials Research Society of India, MRSI (Pune Chapter) during July 24th-25th, 2013.
10. International Conference on “**Frontiers in Energy, Environment, Health and Materials Research (EEMR- 2013)**” organised by CSIR-Institute of Minerals and Materials Technology, Bhubaneswar, Odisha India in association with Indian JSPS Alumni Association during August 12<sup>th</sup>-13<sup>th</sup>, 2013.
11. Participated in International COMSOL Conference held on October 17-18, 2013 at Bangalore, India.

## 9. Research Project Work

### Details of Funding received:

Sr. No.	Title of Project	Name of PI	Funding agency	Cost Rs.	Duration (Year)	Status
1	Ultra fast solar hydrogen production using gas phase photocatalysis based on core-shell semiconductor nanostructures	<b>Dr. S. B. Sadale</b>	DST	5,46,000	<b>July 2013- July 2015 2 Years</b>	Ongoing
2	Studies on efficient tandem polymer solar cells based on graphene grafted polymers and nanostructured inorganic materials	<b>Dr. S. B. Sadale (Co-PI)</b>	BRNS	24,89,500	<b>3 Years</b>	Ongoing

#### a) National collaboration : Nil

S. No.	Title	Funding agency	Duration (Year)	Cost Rs.	Status	Name of PI	Name of collaborative Institute
-							

#### b) International collaboration:

Sr. No.	Title	Funding agency	Duration (Year)	Cost Rs.	Status	Name of PI	Name of collaborative Institute
1	Ultra fast solar hydrogen production using gas phase photocatalysis based on core-shell semiconductor nanostructures	DST-JSPS	<b>July 2013- July 2015 2 Years</b>	5,46,000	In Progress	<b>Dr. S. B. Sadale</b>	<b>Kyoto University, Japan</b>

10. Areas of consultancy and income generated for the last 4 years:(Year wise) Nil

## 11. Fellowships/Awards:

- ❖ **CSIR-New Delhi-Senior Research Fellow -NATIONAL LEVEL FELLOWSHIP**
- ❖ **POST DOCTORAL FELLOW - C.N.R.S., France**
- ❖ **Marie Curie Fellow –European Commission (EU)**
- ❖ **JSPS Fellow-Japan**
- ❖ **Won Second Prize for Poster presentation in 2<sup>nd</sup> International Conference on Electroanalytical Chemistry and Allied Topics (ELAC)-2004, Paper entitled “Electroanalysis of Spray Deposited Pristine Iridium Oxide and Molybdenum Doped Iridium Oxide Thin Film Coatings and their Electrochromism” at Dona Paula, GOA-India, organized by Indian Society for Electro Analytical Chemistry during January 18 to 23, 2004.**
- ❖ **Award for Encouragement of Research in Thin Films, in the 15<sup>th</sup> International Conference on Thin Films (ICTF-15), November 11, 2011 held in Kyoto, Japan.**

**12. Awards / recognitions for excellence in teaching at the state, national and international level**  
Nil

**13. Invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies**

### **A. Invited Talks**

1. Lecture on “Nanotechnology” at INSPIRE SCIENCE CAMP of DST organised by Jaysingpur College ,Jaysingpur,Tal.:Shirol, Dist.:Kolhapur
2. Lecture on “EM Spectrum and Life”, at School of Nanoscience and Technology, Shivaji University, Kolhapur.
3. Invited talk on Energy: conservation at District Level Childrens Science Congress, arranged by National Children’s Science Congress at V.S. Khandekar Prashala, Kolhapur
4. Invited talk on “Nanotechnology for Energy Demands”, at SGGSIET, Nanded, Maharashtra, India

### **B. Worked as Judge/Resource Person**

1. Resource person for District Level Childrens Science Congress, arranged by National Children’s Science Congress at V.S. Khandekar Prashala, Kolhapur
2. Resource person for State Level Children’s Science Congress-2012, arranged by National Children’s Science Congress at Pune and Dhule, Maharashtra
3. Resource person for 15<sup>th</sup> ISTE Student National Convention, organised by Sanjay Ghodawat Group of Institutions , Atigre, Dist.:Kolhapur

4. Resource person for National Conference on emerging trends in technology, engineering and architecture, organised by D. Y. Patil College of Engg. & Tech., Kasaba Bawada, Kolhapur.

### C. MEMBERSHIP OF ACADEMIC BODIES:

- **Associated Member of Institute of Physics, London.**
- **Member of THE JAPAN SOCIETY OF APPLIED PHYSICS, Member number: 0079730**
- **Member of Indian JSPS Alumni Association.**
- **Member of the Indian Association of Physics Teachers (IAPT) (9959).**
- **Member of Materials Research Society of India (MRSI) (LMB 2273 )**

### 14. Participation in staff development programmes

#### Give details

- a. Refresher courses  
Nil
- b. HRD programmes  
Nil
- c. Orientation programmes
  1. Participated in the orientation programme on ‘Advances in Teaching Strategies and Evaluation’ organized by Department of Education, Shivaji University, Kolhapur, during 12<sup>th</sup> and 13<sup>th</sup> October, 2012.
- d. Staff training conducted by the university
  1. Participated One Day workshop on **“Effectiveness in Teaching for Organizational Excellence”**, organized by Department of Technology, Shivaji University, Kolhapur, on 3<sup>rd</sup> Jan 2013
- e. Staff training conducted by other institutions
  1. Participated in the short term course on **“Continuous Assessment and Examination Evaluation”** organized by **Academic Staff College, University of Rajasthan, Jaipur** during October 21<sup>st</sup> to 26<sup>th</sup>, 2013.
- f. Summer/Winter schools, workshops, etc.
  1. Participated in the Summer School of **GOSPEL** (General Olfaction and Sensing Projects on a **European Level**), 30<sup>th</sup> September to 5<sup>th</sup> October **2007**. Europa Beach Hotel, Crete, Greece.

2. Participated in the 15<sup>th</sup> International Krutyn Summer School on **organic photonics and electronics** jointly organized by Center for Organic Photonics and Electronics Research (OPERA) in Kyushu University, Japan, Polish Supramolecular Chemistry Network Foundation, and the Institute of Physical Chemistry of the Polish Academy of Sciences, Poland during **June 8-14, 2014**.

#### 15. Programmes Organized

Sr. No.	Name of Programme	Coordinator	Funding agency	Cost Rs.	Duration (Year)	No. of Participants	Status
1.	One Day Awareness Camp on Beekeeping	Dr. S.B. Sadale	CBRTI, KVIC, Gov. of India	Rs. 5000/-	2012	100	Completed
2.	One day Workshop on organic electronic devices	Dr. S.B. Sadale	TEQIP-II, Shivaji University	Rs. 2,10000/-	2013	350	Completed
3.	Alumni Meet of DoT students	Dr.S.B. Sadale	Shivaji University	Nil	2013	160	Completed
4.	Alumni Meet of DoT students	Dr.S.B. Sadale	Shivaji University	20,000	2014	150	Completed
5.	Science Camp (INSPIRE Science Camp)	Dr. S.B. Sadale	DST, Gov. of India	13,00,000/-	2014	200	Sanctioned

#### 16. Collaboration

##### National Collaboration:

- ❖ Bhabha Atomic Research Centre, BARC, Mumbai
- ❖ National Chemical Laboratory, N.C.L., Pune
- ❖ Centre for Materials for Electronic Technology, Pune
- ❖ Central Electrochemical Research Institute, C.E.C.R.I., Karaikudi, T.N.
- ❖ Solapur University, Solapur, M.S.
- ❖ Pune University, Pune
- ❖ National Environmental Engineering Research Institute (NEERI), Nagpur.
- ❖ Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore
- ❖ UGC-DAE Consortium for Scientific Research, Indore, M.P.

##### International Collaboration:

- ❖ Groupe d'Etude de la Matière Condensée (GEMaC) University of Versailles Saint-Quentin-en-Yvelines and Centre National de la Recherche Scientifique (CNRS),

Versailles, France

- ❖ Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology, Hellas, Heraklion, Crete
- ❖ Kyoto University, Kyoto, Japan.
- ❖ National Institute of Materials Science, NIMS, Japan
- ❖ The University of Aberdeen, King's College, Aberdeen, UK
- ❖ Engineering Research Institute, School of Engineering University of Ulster, Jordanstown campus, Newtownabbey, Co. Antrim BT37 0QB, UK
- ❖ University of Pannonia, Institute of Chemistry, Dept. of General and Inorg. Chem., Egyetem u. 10 H-8200 Veszprém, Hungary
- ❖ Keio University, Yokohama, Japan

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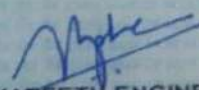
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