Curriculum Vitae

Dr. JAYSUKH HANSARAJBHAI MARKNA
Department of Nanoscience And Advanced Materials, Saurashtra University-Rajkot
Email ID: jaysukh28@gmail.com , jhmarkna@sauuni.ac.in
Phone: +91 – 9974817619, +91 – 6352773788
ORCID ID: 0000-0002-4243-9586
Scopus Author ID: 10439287000
Researcher ID: AAZ-2721-2020



2. Personal			
Date of Birth:	**28. 01. 1980**	Nationality:	**Indian**
Sex:	**Male**	Marital Status:	**Married**

3. Details of Ph.D. Degree			
Ph.D. Title:	**SYNTHESIS AND CHARACTERIZATION OF PEROVSKITE STRUCTURED MIXED OXIDE COMPOUNDS**		
Guide's Name	**Prof. D. G. Kuberkar**		
Date Thesis Submission	**23/12/2006**	Date of Ph. D Viva	**12/07/2007**

4. Teaching Experience: 15 Year (7 Years : Head and Associate Professor, department of Nanotechnology, VVP Engineering College Rajkot).

5. Research Experience: 15 Years :

5.A: Fields of Expertise: Nanotechnology, Material Sciences, Physics, Polymer Technology, Nanoelectronics

6. Research Projects and other Grants (Annexure)			
Principal Investigator		**Completed: 04**	**Ongoing: 00**
1	Research Project	1. FABRICATION AND CHARACTERIZATION OF MANGANITES BASED THIN FILM DEVICES, No/SR/FTP/PS-15/2007. **(DST- Grant Amount Rs. 11,70,000/-).**	
		2. SYNTHESIS AND CHARACTERIZATION OF CARBON NANODOTS BASED DYE SOLAR Cell N0.GUJOCST/MRP/2015-16/2607, **(GUJCOST- Grant Amount Rs. 9,00,000/-).**	
		3. USE OF NANOMATERIAL FOR MAKING OF ECONOMICAL, DURABLE CONCRETE WITH DESIRED STRENGTH AND REDUCTION OF EMISSION OF GREENHOUSE GASES. **(GUJCOST - Grant Amount Rs. 6,85,400/-)**	
		4. PULSED LASER DEPOSITION (PLD) OF COLOSSAL MAGNETORESISTANCE THIN FILMS AND MULTILAYER STRUCTURES AND NO.2003/34/20/BRNS/1944 (**DAE-BRNS- Grant Amount Rs-10,80,000)**	
2	Other Grant	GUJCOST-DST Grant for national seminar – **Grant Amount Rs. 50,000/-.**	

7. Publications (Statistics) (Annexure E)			
International Journal:	80	International Seminars	05
National Journal:	15	National Seminars	10
International Proceedings	10	International Workshops	01
National Proceedings	10	National Workshops	10
		International Conferences	07
		National Conferences	06
		International Symposia	00
		National Symposia	09
Total	115		48

8. Patents (Statistics) (Annexure F)	
GRANTED PATENTS: 05	**1. Patent No: 386784** **2. Patent No: 379862** **3. Patent No: 390378** **4. Patent No: 594785** **5. Patent No: 600035**

9. Book Publication (Statistics) (Annexure BOOK)	
International Books	01
National Books	04
Book Chapter	01

10. Citations, h-Index & i10-Index (Source: Google Scholar)	
Total Citations:	1015
h-Index:	17
i10-Index:	33
Source:	https://scholar.google.com/citations?user=RHRlhDgAAAAJ&hl=en

11. Event Organization (Statistics) Conferences /STTP/ Symposia / Seminars / Workshops / Schools (Annexure H)	
International Events:	01
National Events:	04

12. Awards and Recognitions (Statistics)	
1	**Coordinator** Gujarat Technological University Syllabus Committee for Physics and Nanotechnology.
2	**Gujarat Technological University Award** for Research Activity and Grant, 25th April 2015.
3	**DST-SERC Fast Track Scheme for Young Scientists**: Fabrication and Characterization of Manganites-based Thin Film

	Devices, No/SR/FTP/PS-15/2007. (Grant Amount Rs. 11,70,000/-).
4	**Receiving the best poster presentation award:** During "3rd GUJARAT STATE RESEARCH STUDENTS MEET in the subject of Physics, at Sardar Patel University, Vallabh Vidyanagar, Gujarat.
5	**Best Research Project Award:** Global Green Nanotechnology Conclave (GiGaNTiC-2015) Jointly organized by CII, SERB, and DST
6	**Judge- Indian Science and Engineering Fair (INSEF)-January 2016**
7	**Junior Research Fellow (JRF) in the DAE-BRNS Major Research:** Pulsed Laser Deposition (PLD) of Colossal Magnetoresistance Thin Films and Multilayer Structures NO.2003/34/20/BRNS/194.
8	**Convener:** **Nanostructured and Thin Film Coating-2014.**
9	**Convener:** Recent Advances in Separation Processes in Chemical Engineering and Nanotechnology, Organized by the Department of Chemical Engineering and Department of Nanotechnology, VVP Engineering College -Rajkot.
10	**Convener:** Role of Informatics in Modern Life Science (RIMLS - 2015), Organized by the Department of Biotechnology and Department of Nanotechnology, VVP Engineering College -Rajkot.
11	**Organizing Committee member** PLD-2007, Organized By Saurashtra University Rajkot.
12	**Co-Coordinator** UGC NET examination June 2012 as well as December 2012.
13	**Organizing Committee Member-** National Seminar on Recent Trends in Experimental Condensed Matter Physics RTECMP – 2017) organized by Department of Physics, Saurashtra University, Rajkot-360005 (21st March -2017)
14	**Technical Session Chair –X-Radiate -2014** National Workshop on X-Ray Diffraction for Material Chanararization, Saurashtra University, September 4-5, 2014
15	**Life Member- The Indian Society of Technical Education (LM98544)**
16	**Ph.D. Supervisor – JJT/2K9/SC/1743**
17	**Coordinator:** Training Programme on Synthesis and Characterization Technique, Satyabhama University, Chennai, September 12-14, 2016
18	**Expert Lecturer:**

	Experimental Technique in Physics at the Department of Physics, Saurashtra University Rajkot-360005, April 2008
19	**Judge:** Technical event " Application of Science and Engineering'' at T.N.Rao College and VVP Engineering College, June 2016
20	**Expert Talk:** MEMS/NEMS and Sensors (Design and Simulation), Short Term Training Program on "MEMS/NEMS and Sensors (Design and Simulation) at Department of Nanotechnology-VVP Engineering College -Rajkot-360005 , 23-Dec, 2016
21	**Expert Talk:** Lab Work Understanding e-learning and Teaching through NPTEL Special Winter School:2016 UGC: HRDC Centre, Saurashtra University, Rajkot-360005 [26th December -2018]
22	**Expert Talk:** Condensed Matter Physics UGC-NET Exam Coaching Department of Physics – Saurashtra University -Rajkot-360005 [20th Feb and 22nd Feb-2017]
23	**Subject Expert Staff Selection Committee:** Veerayatan Group of Institutions, Kutch-370460[18th January- 2015]
24	**Expert Talk:** Nanotechnology and Its Role in Life Sciences (Nano-Medicine and Drug Delivery) Refresher Course: Life Sciences UGC: HRDC Centre, Saurashtra University, Rajkot-360005 [7th June-2016].
25	**Convener:** MEMS/NEMS and Sensors (Design and Simulation), Short Term Training Program on "MEMS/NEMS and Sensors (Design and Simulation) at Department of Nanotechnology-VVP Engineering College -Rajkot-360005 [23rd December-2016]
26	**Expert Talk:** Preparation of PLM Special Winter School:2016 UGC: HRDC Centre, Saurashtra University, Rajkot-360005 [28th December-2016]
27	**Research Grant:** Synthesis and characterization of Carbon nanodot-based dye solar Cell, N0.GUJOCST/MRP/2015-16/2607, [Grant Amount Rs. 9,00,000/-].
28	**Research Grant:** Use of nanomaterial for the making of economical, durable concrete With desired strength and reduction of emission of Green House Gases. (Grant Amount Rs. 6,85,400/-)
29	**Expert Talk and Discussion:** Nanotechnology, Education and Youth Yuva-Darshan, Doordarshan-DD Girnar [13th September-2017]
30	**Expert Talk:** Applications of Nanotechnology STTP on Recent Trends in Bio-Nanotechnology for Social Benefits at VVP Engineering College [21st November-2017]
31	**Research Council Member (Gujarat Technological University) -2018**

32	**Expert Talks on Research Methodology** During the course of Ph.D. Scholar of Science at Gujarat Technological University for the academic year 2019-20
33	**Expert Talk:** Nanotechnology and Nanomaterials for Economic, Energy Efficient and Durable products. GUJCOST Sponsered State Level Seminar on Importance and Relevance of Nanotechnology in the Engineering Fields, at Dr.Jivraj Mehta Institute of Technology Anand- Gujarat [17th September-2019]
34	**Expert Talk:** New Start-Up: Education Idea to Industry Refresher Course 232: Start-Up: The Futuristic Pedagogy for Higher Education UGC: HRDC Centre, Saurashtra University, Rajkot-360005 [23rd November -2019]
35	**Expert Talk:** Nanoscience and Nanotechnology for Products GUJCOST sponsered one day Nantional Science Symposium "Sciensum-2020" on 07th February-2020 at Dr.Subhah Science College Junagadh.
36	**Remote Centre Coordinator with IITB** One-day workshop on Arduino: Teaching Learning Centre (ICT) at IIT Bombay, funded by the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), MoE, Govt. of India. [8th - February-2020]
37	**Remote Centre Coordinator with IITB** Remote Centre Coordinator with IITB one day workshop on C/C++ Teaching Learning Centre (ICT) at IIT Bombay, funded by the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), MoE, Govt. of India [20th February-2020]
38	**Expert Talks on Research Methodology** During the course of Ph.D. Scholar of Science at Gujarat Technological University for the academic year 2020-21
39	**Expert Talk:** Nanotechnology in Consumer Products: Innovation and Research Two Days Online Faculty Development Program on CURRENT TRENDS IN RESEARCH 19th & 20th August 2020 at TONTADARYA COLLEGE OF ENGINEERING MUNDARAGI ROAD, GADAG-582101 Karnataka, India
40	**Expert Talk:** Spintronics for Future Application Faculty Development Program on "Inter Disciplinary Aspects of Nanotechnology" 23rd to 25th March 2021 Organized By SCHOOL OF NANOTECHNOLOGY Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal-462033
41	**Expert Talks on Research Methodology**

	During the course of Ph.D. Scholar of Science at HNGU Patan for the academic year 2021-22
42	**Gujarat Technological University Committee Member for defining Quality and Parameter foPh.D. Thesis -2022**
43	**Expert Talks on Research Methodology** During the course of Ph.D. Scholar of Science at Gujarat Technological University for the academic year 2021-22
44	**Expter Project Grant Reviwer** National Research and DDevelopmenAgencyy (ANID), Ministry of Science and Technology, Knowledge and Innovation -Chile
45	**Coordinated in** conducting the Intellectual Property NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION
46	**Jury Member for SSIP grant Screening.** Start-up And Entrepreneurship Council - Saurashtra University
47	**Member of Board of Studies at Subhas UniversityJunagadh**
48	**Coordinator -National Intellectual Property (IPR) Awareness Mission-NIPAM by AICTE**
49	**Center coordinator NATIONAL INSTITUTE OF TECHNICAL TEACHER'S TRAINING & RESEARCh Chandigraph at VVP Engineering College Rajkot**
50	**Expert Talk:** **PROTOTYPE /PROCESS DESIGN AND DEVELOPMENT** **At MOE`S Innovation Cell, Saurashtra University Rajkot-360005** **Dated :01-05-2023**
51	**Expert Talk:** **INVITED SPEAKER FROM CLASSROOM TO BOARDROOM: HARNESSING ENTREPRENEURIAL POTENTIAL IN STUDENTS** **MOE`S Innovation Cell, Saurashtra University Rajkot-360005** **Dated: 15-07-2023**
52	**Expert Talk:** **RESEARCH OPPORTUNITIES IN SCIENCES: KNOWLEDGE TO WEALTH PH.D COURSE WORK** **At Hemchandracharya North Gujarat University-Patan** **Dated: 05-08-2023**
53	**Expert Talk:** **NON-CONVENTION ENERGY RESOURCES IN INDIA** **At MOE`S Innovation Cell, Saurashtra University** **Rajkot-360005**

	Dated: 14-12-2023
54	**Expert Talk:** **SCIENTIFIC APPROACH IN RESEARCH** **NEP ORIENTATION & SENSITIZATION PROGRAMME,** **UGC: Human Resource Development Centre -Rajkot** **Dated: 26-02-2024**
55	**Expert Talk:** **SKILL DEVELOPMENT** **NEP ORIENTATION & SENSITIZATION PROGRAMME,** **UGC: Human Resource Development Centre- Rajkot-360005** **Dated: 11-03-2024**
56	**Expert Talk:** **PROTOTYPE/PROCESS DESIGN AND PRODUCT DEVELOPMENT WORKSHOP ON SSIP AND STARTUP** **At Rajarshi Shahu College Of Pharmacy Buldana, Maharashtra India** **Dated:** 27-03-2024
57	**Expert Talk:** **X-RAY DIFFRACTION AND ITS APPLICATION IN CHEMISTRY PH.D. COURSE WORK-2024** **At Department Of Chemistry, Saurashtra University, Rajkot** **Dated: 01-04-2024**
58	**Expert Talk:** **NANOTECHNOLOGY IN MECHANICAL ENGINEERING: CHALLENGES AND OPPORTUNITY** **STUDENT INNOVATION FEST-2024 UNDER VIGYAN GURJARI** **At VVP Engineering College-Rajkot-360005** **Dated: 01-04-2024**
59	**Expert Talk:** **INNOVATION IN RESEARCH AND IPR: NEP-2020 PERSPECTIVE SHORT TERM PROGRAMME: 38** **RESEARCH METHODOLOGY AND ETHICS** **At UGC:Malaviya Mission for Teacher Training, Saurashtra University Rajkot-3600005** **Dated: 23-07-2024**
60	**Expert Talk:** **SKILL DEVELOPMENT EDUCATION FOR EMPOWERMENT: AATMANIRBHAR BHARAT'S VISION" at UGC:Malaviya Mission for Teacher Training, Saurashtra University Rajkot-3600005.** **Dated: 13-10- 2025**

13. Invitations Plenary Talks / Invited Talks / Expert Talks (Annexure I)

International Events:	01
National Events:	10

14. Research Guidance Reg.No: JJT/2K(/SC/1743		
Ph.D. Guidance	Completed: 03	Ongoing: 02

15.	**Reviewer Of Research Journals**
1	**Elsevier- Nuclear Instruments and Methods in Physics Research B (NIM-B)**
2	**Elsevier-Carbohydrate Polymer**
3	**American Journal of Nanoscience and Nanotechnology**
4	**Indian Journal of Science and Engineering**
5	**American Journal of Materials Science and Application**
6	**ACS Applied Nanomaterials**
7	**Mechanics of Advanced Composite Structures**
8	**Applied Physics Letters**
9	**Nano futures**
10	**Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanomaterials, Nanoengineering and Nanosystems**
11	**Surface topography**
12	**Materials Today: Proceedings**
13	**Physics Open**
14	**Physics Letter A**
15	**Archives of Computational Methods in Engineering**
16	**Ionics-Springer-Nature**
17	**Journal of Materials Science: Materials in Electronics-Springer-Nature**
18	**Journal of Materials Chemistry A- Royal Society of Chemistry**
19	**Chemical Science-Royal Society of Chemistry**
20	**Surface Review and Letters**

16. Refresher Course / School/ STTP Attended					
Sr.No	Name	Organizer	Duration	Year	Place
1	Vacuum Techniques	Nuclear Science Centre New Delhi	03rd-19th February	2004	Nuclear Science Centre New Delhi

2	School on Ion Beams in Materials Science	Institute of Physics-Bhubaneswar	October 4 To 09	2004	Institute of Physics-Bhubaneswar
3	National Workshop on Advanced Methods For Materials Characterization	Materials Research Society (MRSI)-Mumbai	October 11 To 15	2004	BARC-Mumbai
4	Synthesis and Modification of Nano-Structured by Energetic Ion Beams	Nuclear Science Centre New Delhi	Feb.20-24	2005	Nuclear Science Centre New Delhi
5	Teachers Training and Capacity Building Programme	Knowledge Consortium of Gujarat (KCG), Department of Education, Gujarat	20 to 25 June	2011	PDPU-Gandhinagar
6	Mission 10X	ISTE (Indian Society for Technical Education) and WIPRO	7 to 11 May	2012	VVP Engineering College -Rajkot
7	Special Summer School-2014	UGC: Academic Staff College	2 to 22 June	2014	Saurashtra University - Rajkot
8	Recent Advances in Separation Processes in Chemical Engineering and Nanotechnology	Department of Chemical Engineering and Department of Nanotechnology	23 to 27 June	2014	VVP Engineering College -Rajkot
9	Special Summer School-2015 (Enhancement of E-learning, I-Teaching, and Academic Administration)	UGC: Academic Staff College	25- May to 14- June	2015	Saurashtra University - Rajkot
10	Role of Informatics in Modern Life Science (RIMLS - 2015)	Department of Bio-Technology and Department of Nanotechnology	14th - 18th December - 2015	2015	VVP Engineering College -Rajkot

11	INUP Hands-on training workshop on Fabrication of MEMS sensor	IIT -MUMBAI	11-15th April-2016	2016	IIT -MUMBAI
12	MEMS/NEMS and Sensors (Design and Simulation)	Department of Nanotechnology-(ISTE and GTU approved)	19-23 December	2016	VVP Engineering College -Rajkot-360005
13	Nanomaterials: Characterization and Applications	National Institute of Technical Teachers Training and Research, Chandigarh	13th to 17th, November 2017	2017	National Institute of Technical Teachers Training and Research, Chandigarh
14	Recent Trends in Bio-Nano Technology for Societal Benefits	Department of Bio-Technology and Department of Nanotechnology	20th - 24th November 2017	2017	VVP Engineering College -Rajkot
15	Quantum and Energy Materials: Potential & Applications	National Institute of Technical Teachers Training and Research, Chandigarh	20/04/2020 to 24/04/2020 (One Week)	2020	National Institute of Technical Teachers Training and Research, Chandigarh
16	ICT Tools For Teaching Learning Process and Institute	ELECTRONICS & ICT ACADEMIES NIT Patna, MNIT Jaipur, PDPM IIITDM Jabalpur, IIT Guwahati and IIT Roorkee	10TH - 21ST AUGUST	2020	ELECTRONICS & ICT ACADEMIES NIT Patna, MNIT Jaipur, PDPM IIITDM Jabalpur, IIT Guwahati and IIT Roorkee
17	Internet of Things	National Institute of Technical Teachers Training and Research, Chandigarh	10-04-20 to 14-04-20	2020	National Institute of Technical Teachers Training and Research, Chandigarh

18	Photonics	THAKUR COLLEGE OF ENGINEERING & TECHNOLOGY	23-11-2020 to 27-11-2020	2020	THAKUR COLLEGE OF ENGINEERING & TECHNOLOGY MUMBAI
19	Lab on Chip	S.R. M INSTITUTE OF SCIENCE AND TECHNOLOGY	18-01-2021 to 22-01-2021	2021	S.R. M INSTITUTE OF SCIENCE AND TECHNOLOGY Tamil Nadu
20	Fabrication and Characterization of Thin Films for Future Technological Applications	The National Institute of Engineering. Mysuru Karnataka	16/08/2021 to 20/08/2021	2021	The National Institute of Engineering. Mysuru Karnataka
21	Essential Industrial Chemistry for Engineers	National Institute of Technical Teachers Training and Research, Chandigarh	05 to 09, November 2022	2022	National Institute of Technical Teachers Training and Research, Chandigarh

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

सत्यमेव जयते

क्रमांक : 022116346
SL No :

भारत सरकार
GOVERNMENT OF INDIA
पेटेंट कार्यालय
THE PATENT OFFICE

पेटेंट प्रमाणपत्र
PATENT CERTIFICATE

(Rule 74 Of The Patents Rules)

पेटेंट सं. / Patent No.	:	386784
आवेदन सं. / Application No.	:	202021054095
फाइल करने की तारीख / Date of Filing	:	12/12/2020
पेटेंटी / Patentee	:	1.JAYSUKH MARKNA 2.GOHEL SMEETRAJ 3.GOHIL KRUSHNAPALSINH 4.BHATT TEJAS et al.

प्रमाणित किया जाता है कि पेटेंटी को उपरोक्त आवेदन में यथाप्रकटित NANOTECHNOLOGY BASED CEMENT-LESS PLASTIC COMPOSITE PAVER BLOCK/BRICKS नामक आविष्कार के लिए, पेटेंट अधिनियम, १९७० के उपबंधों के अनुसार आज तारीख 12th day of December 2020 से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled NANOTECHNOLOGY BASED CEMENT-LESS PLASTIC COMPOSITE PAVER BLOCK/BRICKS as disclosed in the above mentioned application for the term of 20 years from the 12th day of December 2020 in accordance with the provisions of the Patents Act,1970.

एकस्व कार्यालय THE PATENT OFFICE GOVT.OF INDIA भारत सरकार

अनुदान की तारीख :
Date of Grant : 18/01/2022

पेटेंट नियंत्रक
Controller of Patent

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, **12th day of December 2022** को और उसके पश्चात प्रत्येक वर्ष मे उसी दिन देय होगी।

Note. - The fees for renewal of this patent, if it is to be maintained will fall / has fallen due on 12th day of December 2022 and on the same day in every year thereafter.

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

सत्यमेव जयते

क्रमांक : 022115317
SL No :

भारत सरकार
GOVERNMENT OF INDIA
पेटेंट कार्यालय
THE PATENT OFFICE

पेटेंट प्रमाणपत्र
PATENT CERTIFICATE
(Rule 74 Of The Patents Rules)

पेटेंट सं. / Patent No.	:	379862
आवेदन सं. / Application No.	:	201824004827
फाइल करने की तारीख / Date of Filing	:	08/02/2018
पेटेंटी / Patentee	:	1.J.H. Markna 2.Chirag R. Savaliya 3.Jay Pala 4.Rajni J. Pala et al. et al. et al.

प्रमाणित किया जाता है कि पेटेंटी को उपरोक्त आवेदन में यथाप्रकटित METHOD OF PREPARING SUPERABSORBENT POLYMERS FOR SOIL CONDITIONING BY EFFICIENT RELEASE OF NANO NUTRIENTS नामक आविष्कार के लिए, पेटेंट अधिनियम, १९७० के उपबंधों के अनुसार आज तारीख 8th day of February 2018 से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled METHOD OF PREPARING SUPERABSORBENT POLYMERS FOR SOIL CONDITIONING BY EFFICIENT RELEASE OF NANO NUTRIENTS as disclosed in the above mentioned application for the term of 20 years from the 8th day of February 2018 in accordance with the provisions of the Patents Act,1970.

एकस्य कार्यालय THE PATENT OFFICE GOVT.OF INDIA भारत सरकार

अनुदान की तारीख : 25/10/2021
Date of Grant :

पेटेंट नियंत्रक
Controller of Patent

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, **8th day of February 2020** को और उसके पश्चात प्रत्येक वर्ष मे उसी दिन देय होगी।

Note. - The fees for renewal of this patent, if it is to be maintained will fall / has fallen due on 8th day of February 2020 and on the same day in every year thereafter.