

Curriculum Vitae

Aim of Life:

Being a researcher, I always try to correlate the scientific approach and day-to-day living things to minimize the problems of society with advanced technologies and research. I want to develop my knowledge so that I can use it for the growth of mankind.

Name : Mr. Rohit Prabhakar Londhe
Date of Birth : 14th October 1985
Gender : Male
Age : 37
Nationality : Indian
Address : A/P: Lasurne, Taluka: Indapur,
Dist: Pune, State: Maharashtra,
India, Pin: 413114
Phone No : +91 9960402678 / 7774911918
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Educational Qualification:



Qualifying Exam	Name of the Board / Univ.	Year Of Passing	% of Marks	Class/Grade
M-SET	Savitribai Phule Pune University, Pune, MH	2023	-	-
Master of Science M.Sc. (Physics)	Savitribai Phule Pune University, Pune, MH	2008	61.3	First Class
Bachelor of Science B.Sc. (Physics)	Savitribai Phule Pune University, Pune, India	2006	68.91	First Class
Higher Secondary School Certificate HSC	Maharashtra State Board, Pune	2003	50.17	Second Class
Secondary School Certificate SSC	Maharashtra State Board, Pune	2001	66.66	First Class

Research interest: Materials Science, Sensors and Actuators

Previous Post: Worked as Assistant Professor (Contractual) at Department of Physics of Arts, Science and Commerce College Indapur, Pune. (2009-2022)

Present Post: Working as Administrative Assistant at Maharashtra State Faculty Development Academy (MSFDA), Pune. (2022)

Work done carried out at Institutional Level:

Initiated Work	Role	Duties & responsibilities
Research Club	Member	Inculcating research mind amongst the students.
Energy Club	Co-ordinator	Monitoring Students for Energy Conservation
Astronomy Club	Co-ordinator	Mentoring the students for Astronomical events and its Facts. Established Astronomy Club to increase curiosity among students. Organized Aakashdarshan Programme indoor and outdoor for students and society. Completed Certificate course with IUCAA
Aavishakar	Member	Worked in Certificate, Stage and Subject presentations division.
National Service Scheme NSS	Member	Role in organization of Students camp.
Central & Departmental Library	Mentor	Maintained books issuing catalog. Promoted students for reading and writing habits. Increment of e-resources,
History Writing of Adopted Villages	Member	Mentoring students to gather historical information of villages, Heroic Stones in different villages. Socio cultural study
Innovation and Incubation Centre	Member	Mentoring Students to collect flora and fauna of villages, water sample, study of Back water Ujani reservoir.
Hybrid Power Station	Co-ordinator	Maintained control panel of Solar Wind hybrid Power station in college campus.

Research Publication, Oral Publications, Conferences, Seminars, Workshops and Projects carried out.

Research Publications:

1. **Rohit Londhe**, Sunilkumar Dwivedi, Sanjay Chakane, Ashok Datir, *Properties of Functionally Graded Vanadium Doped Polyaniline with Copper Phthalocyanine*, Journal of Emerging Technologies and Innovative Research (JETIR), Volume 6, Issue 5, PP- 135-139, May 2019.
2. **Rohit Londhe** , Sunilkumar Dwivedi, Sanjay Chakane, Naseem Deshpande, Aniket Hegade, *FTIR Study of Chemically Synthesized Conducting Polyaniline by Using Natural Acid*, Journal of Emerging Technologies and Innovative Research (JETIR), Volume 6, Issue 4, PP- 560-563, April 2019.
3. Aniket Hegade, Sanjay Chakane, Sagar A Kadam, **Rohit P Londhe**, Aditi S Chakane, *Antimicrobial Activity of Iron Oxide Nanoparticles*, International Research Journal of Multidisciplinary Studies, Volume IV, Special issues I, October 2018.
4. **Rohit Londhe**, Sanjay Chakane, Ashok Datir, “*Electrical Properties of Functionally Upgraded Conducting Polyaniline with Copper Phthalocyanine*”, Research Innovator, International Multidisciplinary Research Journal, ISSN 2348 – 7674, Volume III Issue IV: August 2016.
5. Sanjay Chakane, **Rohit Londhe**, “*Synthesis, Modifications, Characterizations and Applications of Conducting Polyaniline and Its Derivatives Blended With Metallophthalocyanine in Gas and Vapour Sensing*”, Regional Research Conference organized by BCUD, Savitribai Phule Pune University , Pune, Innovation 2016.
6. Ashok Datir, Nilesh Kadam, Khalid S Khatik, Prinkyanka Nalawade, Vaibhav Chavan, Govind Thorat, Sanjay Chakane, **Rohit Londhe**, “*Chemical and Electrochemical Methods of Synthesis of Polyaniline*”, Printing Area, International Research Journal, Interdisciplinary multilingual Referred Journal, Issue-16, Vol-01, 2016 (IF-3.024 IJIF)
7. Ashok Datir, Samadhan Satale, Sanjay Chakane, **Rohit Londhe**, “*Characterization Study of SnO₂ Blended with Polyaniline*”, Research Chronicler , International Multidisciplinary Research journal, Volume IV Issue II: March 2016
8. Ashok Datir, Komal Veer, **Rohit Londhe**, Sanjay Chakane, “*Electrolytes Effect of on Gas Sensing Properties of Polyaniline*”, Vidyawarta Interdisciplinary multilingual Referred Journal, Issue-14, Vol-01, 2016.(IF- 3.102 IJIF).
9. Sanjay Chakane, **Rohit Londhe**, “*Synthesis, Characterization and Humidity Sensing Application of Conducting Polyaniline Prepared by Electrochemical Method*”, International Conference on Biological, Physical and Life Sciences (BPLS) held on 27th&28th January, 2014 at Dubai.
10. Sanjay Chakane, **Rohit Londhe**, “*Synthesis of Polyaniline by Electrochemical Method*”, International Conference on Materials, Chemicals and Life Sciences’ held on 20th&21st June, 2013 at Bangkok, Thailand.

11. Nilesh Kadam, Somanath Mane, Viresh Holkunde, **Rohit Londhe**, “*Water testing of Indapur Taluka*”, International Journal of Multidisciplinary Research (IJMR), Vol. I, Issue 10 (II), January 2013 at Arora Towers, Pune.
12. Sujata Vajarinkar, **Rohit Londhe**, “*Synthesis and Characterization of Chemically Deposited Zinc Hydroxide Films*”, 1st International Conference on Physics, Mathematics, Geology and Engineering Sciences PMGES, Conference Proceeding, March 2013 at Arora Towers, Pune.
13. Manisha Ghadage, **Rohit Londhe**, “*Optical Study of Natural Materials*”, 1st International Conference on Physics, Mathematics, Geology and Engineering Sciences PMGES, Conference Proceeding, March 2013 at Arora Towers, Pune.

Oral Presentation:

1. Presented research paper entitled, “*Synthesis of Polyaniline by Electrochemical Method*”, at International Conference on Materials, Chemicals and Life Sciences’ held on 20th&21st June, 2013 at First Hotel Bangkok, Thailand.
2. Presented research paper entitled, “*Synthesis, Characterization and Humidity Sensing Application of Conducting Polyaniline Prepared by Electrochemical Method*”, at International Conference on Biological, Physical and Life Sciences (BPLS) held on 27th&28th January, 2014 at Hotel (Dubai Youth), Dubai.
3. Presented research abstract on a project entitled, “*Synthesis, Modifications, Characterizations and Applications of Conducting Polyaniline and Its Derivatives Blended With Metallophthalocyanine in Gas and Vapour Sensing*”, at Regional Research Conference organized by BCUD, Savitribai Phule Pune University, Pune, Innovation 2016.

Conferences Attended:

1. **International** Conference on Materials, Chemicals and Life Sciences’ held on 20th&21st June, 2013 at First Hotel Bangkok, Thailand.
2. **International** Conference on Biological, Physical and Life Sciences (BPLS) held on 27th&28th January, 2014 at Hotel (Dubai Youth), Dubai.
3. Attended one day ‘**International** Research Conference on “Recent Changes, Developments and Consequent Impact on Economy” held on 22nd December, 2012 at Hotel Aurora Towers, Pune.
4. Participated 1st **International** Conference on “Physics, Mathematics, Geology and Engineering Sciences” held on 18th March 2013 at Hotel Aurora Towers, Pune.

5. Participated in the **Regional** Research Conference ‘Innovation- 2016’ held on 7th October 2016 at Baburaoji Gholap College Sangavi, Pune.
6. Participated in a **State** Level Conference, ‘Frontiers in Basic and Applied Sciences’ held on 21st and 22nd December 2018, organized by Samaj Shikshan Mandals, Amruteshwar Arts, Commerce and Science College Vinzar, Velhe, Pune.

Seminars Attended:

1. Attended Two day **National** Seminar on ‘New Trends in Materials Science’, [NTMS-2011] held on February 11th & 12th 2011 organized by the Department of Physics Arts, Science and Commerce College Indapur.
2. Participated in **College** level one day Seminar on ‘Synthesis, Characterization and Applications of New Materials’ [SCANM-2K13], held on 13th February 2013, organized by Arts, Science and Commerce College Indapur.
3. Attended one day **National** Seminar on ‘The role of Academic and Administrative Audit in Quality Enhancement of Educational Institution’ organized by Smt. A.R.P. Kanya College, Ichalkaranji, Kolhapur, held on 24th September, 2016.

Workshop attended:

1. Attended one day **University** Level workshop on “Orientation of Revised syllabus of T.Y.B.Sc.Paper- V- Advanced Electronics Instrumentation”, organized on 27th February 2012 at T.C.College, Baramati.
2. Attended “Introductory **Regional** Workshop on Moral Capabilities” held at Baha’i Academy, Panchgani on 30th June and 1st July 2012.
3. Participated in a two day **Regional** workshop on “Teaching Astronomy and Astrophysics at undergraduate Level” organized by the Department of Physics, Fergusson College, Pune in collaboration with IUCAA, Pune, 3rd & 4th July 2013.
4. Participated in **Regional** Workshop on ‘Research Based Pedagogical Tools’ funded by DBT, Govt. of India and IISER Pune, which was held in Shri Panham Khemraj Mahavidhyalaya, Sawantwadi From 9th January to 11th January 2018.
5. Participated in **College** Level one day workshop on ‘Research Based Pedagogical Tools’, held in Indapur College, organized by Department of Physics of Arts, Science and Commerce College Indapur, Pune. 2018.

Project Carried Out:

1. Bi colour Dancing Light (B. Sc. Level 2006).

This project was designed for the purpose of lightening effect produced by the LED's. In the fulfillment of this project a timer IC 555 and a decade counter CD 4017 have been used. The IC 555 which is wired as Astable Multivibrator to generate clock pulses for the counter IC CD4017. The frequency of the Multivibrator decides the speed with which the LED's switch ON and OFF. The value of the variable resistors and capacitors decides the output timing of the Astable Multivibrator.

2. Making of Power Rectifier (M. Sc. Level 2008).

I have made power rectifier which was capable to convert alternating current to direct current with high voltage nearly 60 V as an output. These devices are integral part of telecom rectifiers, industries and battery chargers. This device includes one or more diodes as per the requirement. Power rectifiers vary in terms of AC input and DC output. This device was applied for the detection of amplitude modulated in radio signals. It also supplies polarized voltage in welding.

3. Synthesis, Modifications, Characterization and Applications of Conducting Polyaniline in Gas and Vapour Sensing (2012): (worked under UGC- MRP)

Under this project, I have made conducting polyaniline material and its wide range of applications. The polyaniline material was synthesized in laboratory by chemical as well as electrochemical route. The sensor samples were prepared and operated and studied at ambient temperature. The samples were prepared in the form of pellets as well as thin films at different concentrations.

4. Synthesis, Modifications, Characterization and Applications of Conducting Polyaniline and its Derivatives Blended With Metallophthalocyanine in Gas and Vapour Sensing (2016): Worked under (BCUD, SPPU- MRP)

In this project, I have developed humidity sensor using polyaniline and metallophthalocyanine material. The main aim of this experiment is to study and understand polymer structure, polymerization process and its preparation. The most commonly being used was chemical and electrochemical method. In this work I used chemical and electrochemical method for synthesizing conducting polyaniline whereas chemical method was used to synthesize different Metallophthalocyanine. The pellets of different diameters were made by press technique. Conducting polyaniline was synthesized by aqueous electrochemical cell using $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ as a dopant. The films so obtained were characterized using Infrared absorption and the electrical resistivity measurements.

Resistivity of Blend film of weak acid doped polyaniline was shown to exhibit good sensitivity as well as selectivity for NH_3 . In contrast to the doping mechanism of NH_3 over the strong inorganic acid doped polyaniline, the weak organic acid

doped polyaniline showed doping effects when exposed to ammonia. Vibrational spectroscopy was used to analyze the bonding mechanism. A composite device for sensing NO₂ and H₂O vapors was formulated by combining Polyaniline and Metallophthalocyanine.

Skills, Hobbies, Curricular, Extra-Curricular Activities:

Skills:

- Having ability to do work in group as well as individually
- Having practice of handling FTIR, UV- Visible , Keithely Electrometer, Spin Coating Machine, Hydraulic KBr Press
- Good Communication
- Good Conversation

Hobbies:

- Reading Biography and Autobiographies
- Listening Classical Music
- Plying Cricket, Badminton, Table tennis,
- Swimming

Curricular:

- Adopting ICT based teaching in college students.
- Conducting educational tours.
- Inculcating cooperative learning scheme amongst the students via workshops.
- Implementing RBPT method, an effective teaching Learning tool.

Extra-Curricular:

- Working as Assistant Programme Officer (National Service Scheme), Arts, Science and Commerce College, Indapur.
- Running Amateur Astronomy Club at Arts, Science and Commerce College, Indapur.
- Conducts Energy Club, at Arts, Science and Commerce College, Indapur.
- Running a Watershed Management Project on (CCT), under NSS team at 20 adopted Village.

International Exposure:

Visited to Bangkok, Thailand Country, on the occasion of 'International Conference on Commerce, Management, Humanities and Social Sciences , Engineering and Physical Sciences, Materials, Chemical and Life sciences'. Dubai (UAE), for the International Conference.

Other:

- Worked as Coordinator of Research Center.

- Worked as Coordinator of Amateur astronomy Club.
- Worked as Assistant Programme officer of NSS.
- Worked as a member of Energy Club.
- Worked as a Member Traditional Programme Committee.
- Worked with NAAC IQAC Department.
- Worked with BCUD and UGC Department of college.
- Participated in Sports Weak Activity.
- Participated in Fort trekking.
- Mentored students for 'i'College Research Exhibition.
- Mentored students for Aavishkar Competition.
- Participated in Stage Committee of various Programme
- Pursuing Research work in the field of Materials Sciences, Sensors and Actuators.
- Worked as paper setter at college as well as university level
- Worked as examiner at college as well as university level

The Student Centric Undertaking Report during Lockdown Period :

Sr. No.	Name of an Initiative taken	Period	Remark if any
1	Organized Covid-19 Awareness Quiz by i college IQAC Prof. Rohit Londhe, Prof. Viresh Holkunde, Principal- Dr. Sanjay Chakane https://forms.gle/SNk8JVPqubGvRyGj9	20/04/2020	More than 1450 responses have been recorded & provided e-certificates
2	Organized Covid-19 Awareness Quiz by i college IQAC, NSS and NCC Prof. Rohit Londhe, Prof. B. G. Kale, Prof. Yadav G.C. Principal- Dr. Sanjay Chakane https://forms.gle/pCdQCHENjy69Nm9d8	28/04/2020	More than 271 responses have been recorded & provided e- certificates.
3	Organized General Physics Quiz by department of physics along with i college IQAC Prof. Aniket Hegade, Mrs. Dipali Shinde, Mrs. Swati Raut, Ms. Varsha Ghogare, Prof. Rohit Londhe, Dr. Shivaji Veer, Principal Dr. Sanjay Chakane https://forms.gle/6mQZ3uYLWEvJ1K1M7	03/052020	More than 110 responses have been recorded & provided e-certificates.
4	Organised General Physics Quiz-II by department of physics along with i college IQAC Prof. Aniket Hegade, Mrs. Dipali Shinde, Mrs. Swati Raut, Prof. Rohit Londhe, Dr. Shivaji Veer, Principal Dr. Sanjay Chakane https://forms.gle/QFhHohp9hqTqpZET8	05/05/2020	More than 149 responses have been recorded & provided certificates.
5	Organized Disaster Management Awareness Quiz by i College IQAC Prof. Rohit Londhe, Principal Dr. Sanjay Chakane https://forms.gle/GuyjREftTRwWfFWA7	09/05/2020	More than 436 responses have been recorded & provided certificates.

Reference Persons:

Dr. Sanjay D. Chakane

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Principal, TJ College Khadki, Pune

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