

## Resume



### A . General Information:

- i) **Name** : **Dr. ROHITKUMAR MURLIDHAR AGRAWAL**  
(first) (middle) (surname)
- ii) **Address (R)** : Siddhi Vinayak Colony, Bacchraj Factory, College Road  
Amravati, (M.S.). PIN- 444 601. India.
- Phone No.** : 09422917514 Res. (0721) 2574157
- E-mail** : agrawal195@gmail.com, rohit\_agrawal1985@rediffmail.com
- iii) **Designation** : Assistant Professor
- iv) **Department** : Physics, Shri R.L.T. College of Science, Akola.
- v) **Date of Birth** : 01<sup>st</sup> March 1985
- vi) **Area of Specialization**: Condensed Matter Physics.
- vii) **Area of Research** : Nano-crystalline Oxide Gas & Humidity Sensors, Polymers, etc.

### B. Academic Qualifications: M.Sc., Ph.D. (Physics)

Degree	Subject	University	Year
Ph.D.	Synthesis and Characterization of (ZnO-SnO <sub>2</sub> ) Nano Composites for Humidity Sensing Application.	S.G.B. Amravati University, Amravati	Notification on dated 26 <sup>th</sup> Aug. 2016.
M.Sc.	Physics	S.G.B. Amravati University, Amravati	March 2008
B.Sc.	Physics, Chemistry, Mathematics	S.G.B. Amravati University, Amravati	March 2006

### Additional Qualification:

Name of Exam	Name of Institute	Year of Passing	Percentage/ Grade
Diploma in Information Technology	Unisys InfoTech Corporation, Amravati	March 2005	81% (I)
Tally 5.4/7.2	Satidham Computer Training Institute	May 2010	A
Advance Course in Technical Analysis	Precision Technical	Jan 2011	A

**Experience:**

Teaching			Research		
1.	Under Graduate (Physics) Regular Basis	06 Years	1.	Research (Chemical Gas Sensors, Solid State Physics, Polymers)	11 Years
2.	Post Graduate (Physics) Regular Basis	02 Years	2.	No. of M.Sc. Project Guided	11
3.	Post Graduate (Physics) (Ad-hoc Basis)	07 Years	3.	Research Publications: Total	18
4.	M.Sc. (Physics Project)	06 Years	4.	International Journals	17
5.	Conference /Seminar/Sym. attended	10 Years	5.	Conference /Seminar/Symposium Publications	02

**Details of Professional Training/Faculty Development Programme/Courses Specifying Period:**

Sr. No.	Name of the Course / Summer School	Place	Duration	Sponsoring Agency
1	45 <sup>th</sup> Orientation Programme.	Sant Gadge Baba Amravati University, Amravati.	16 <sup>th</sup> July 2019 to 05 <sup>th</sup> Aug. 2019	HRDC-UGC
2	Online Refresher course (Skill for new educational Architecture)	Online	3 Months (16 Weeks)	ARPIT (NTA) SWAYAM
3	Faculty Development Programme (FDP) (Managing Online Classes and Co-creating MOOCS)	Teaching Learning Centre Ramanujan College, University Delhi	20 April 2020 to 06 May 2020	HRDC-PMMMNT
4	29 <sup>th</sup> Online Short-Term Course on E-Content Development	Gujarat University, Gujarat.	28 May 2020 to 03 June 2020	UGC-HRDC
5	PRCN /SD 169/DC 40/AF 17 / Navy 03	Officer Training Academy (OTA) Kamptee, Nagpur.	8 Feb 2021 to 8 May 2021 (3 Months)	DGNCC, New Delhi

**Research Papers Published (International Journal):**

Sr. No.	Title of Research Article	Authors	Journal Name, Vol., Year	Status
1	H <sub>2</sub> S Sensing Properties Of Metal Oxide (SnO <sub>2</sub> -CuO-TiO <sub>2</sub> ) Thin Films at Room Temperature	<b>R. M. Agrawal</b>	<i>Journal of Electron Devices</i> , Vol. 12, pp. 730-733, (2012). <b>Citation:5</b>	International
2	Fabrication of Multilayer thin film sensor (MgO-TiO <sub>2</sub> -ppy) for sensing application of CO <sub>2</sub> gas	<b>R. M. Agrawal</b> , G. T. Lamdhade, N.G. Balsere, A.S. Wadtkar, T.S. Wasnik, R. V. Joat, R. V. Waghmare	<i>International Journal of basic and applied research</i> Special Issue (256-258) ISSN:2249-3352	International

3	Stannic Oxide Doped with Zinc Oxide based for CO <sub>2</sub> gas Sensing	<b>Agrawal R.M.</b> Lamdhade G. T. Raulkar K.B.,	<i>International Journal of basic and applied research</i> Special Issue (192-195) ISSN:2249-3352	International
4	Application of Polypyrrole for CO <sub>2</sub> gas Sensing at different temperature	<b>Agrawal R.M.</b> , Lamdhade G. T. Raulkar K.B., Raghuwanshi F.C	<i>International Journal of basic and applied research</i> Special Issue (201-203) ISSN:2249-3352	International
5	Synthesis and Study of Electrical Conductivity of Cinnamic Acid doped 1:2 (PS+PMMA) Polyblend thin films	<b>R. M. Agrawal</b> , R.V. Joat, A.S. Wadatkar, T.S. Wasnik, P.S. Bodkhe, S. Binani,	<i>International Journal of basic and applied research</i> Special Vol.02 Issue-2 (December 2012,72-76) ISSN:2249-3352	International
6	SnO <sub>2</sub> Nanoparticles Synthesis via Liquid-Phase Co-precipitation Technique.,	<b>R. M. Agrawal</b> , G. T. Lamdhade, F. C. Raghuwanshi, V. M. Balkhande, T. Shripathi.	<i>Advanced Materials Letters</i> , Vol.6 (8), pp 738-742 (2015). <b>Impact factor: 1.46</b>	International
7	CuO-Activated ZnO thick films for H <sub>2</sub> S gas sensing at lower temperature.	<b>R. M. Agrawal</b> , G. T. Lamdhade, F. C. Raghuwanshi, S.D. Charpe.	<i>Bionano Frontier, Journal of Science and Technology</i> .Vol.8, Issue 3, 22-23 April 2015. ISSN: 0974-2678	International
8	Synthesis and Characterization of Magnesium oxide Nanoparticles with 1:1 molar ratio via Liquid-Phase Method.,	<b>R. M Agrawal</b> , S D Charpe, G.T. Lamdhade, F C Raghuwanshi.	<i>International Journal of Application or Innovation in Engineering &amp; Management (IJAIEM)</i> , Volume 4, Issue 2,(2015). ISSN 2319 – 4847. <b>Impact factor: 4.015</b>	International
9	Study of DC Conductivity of Polypyrrole doped with SnO <sub>2</sub> Nanocomposites	<b>R M Agrawal</b> , T S Wasnik, K B Raulkar , G T Lamdhade	<i>International Journal of Scientific Research in Science, Engineering and Technology (ijsrset)</i> Volume 4 , Issue 1, pp 1249-1253. (2018). ISSN : 2394-4099. <b>Impact factor: 4.916</b>	International
10	Humidity Sensing Properties of BaTiO <sub>3</sub> doped ZnO Thick Films	<b>R M Agrawal</b> , G T Lamdhade	<i>Ajanta</i> Volume-VIII, Issue-I, pp 33-38(January 2019) ISSN: 2277-5730 <b>Impact factor: 5.5</b> (UGC Approved Journal)	National
11	Synthesis and Humidity Sensing Investigation of Nanostructured ZnO doped SnO <sub>2</sub> Thick Films	<b>R M Agrawal</b> , G T Lamdhade	<i>Research Journey International E-Research Journal</i> Volume 110, Issue-I, pp 25-30 (Feb-2019)) <b>Impact factor: 6.261</b> (UGC Approved Journal)	International
12	Water Vapour Sensing Mechanism of PANI doped with ZnO Nanocomposites	T R Ingale <b>R M Agrawal</b> , G T Lamdhade F C Raghuwanshi. K B Raulkar , V. Ganesan	<i>Research Journey International E-Research Journal</i> Volume 110, Issue-I, pp 250-253 (Feb-2019) <b>Impact factor: 6.261</b> (UGC Approved Journal)	International

13	Study of AC Electrical Conductivity and Dielectric Properties of Polypyrrole based ZnO Nanocomposites.	T S Wasnik <b>R M Agrawal</b> , K B Raulkar , G T Lamdhade R V Joat	<i>Research Journey International E-Research Journal</i> Volume 110, Issue-I, pp 254-258 (Feb-2019)) <b>Impact factor: 6.261</b> (UGC Approved Journal)	International
14	Humidity Sensing of ZnO/SnO <sub>2</sub> doped BaTiO <sub>3</sub> Screen printed film sensor	<b>R M Agrawal</b>	<i>Aayushi International Interdisciplinary Research Journal</i> pp: 327-330 (2019) ISSN: 2349-638x	International
15	Study of DC conductivity of Polyaniline doped Zinc Oxide Nanocomposites	<b>R M Agrawal</b> , G T Lamdhade B.S. Agrawal	<i>Aayushi International Interdisciplinary Research Journal</i> pp.: 331-333 (2019) ISSN: 2349-638x	International
16	Exploitation of Zinc Oxide nanoparticle as a Humidity Sensor.	<b>R M Agrawal</b> , G T Lamdhade S. R. Samrutwar	<i>Aayushi International Interdisciplinary Research Journal</i> pp.: 334-337 (2019) ISSN: 2349-638x	International
17	Study of SnO <sub>2</sub> doped Polypyrrole Nanocomposites for AC conductivity and Dielectric properties.	<b>R M Agrawal</b> , T.S. Wasnik	<i>Aayushi International Interdisciplinary Research Journal</i> pp.: 338-342 (2019)	International
18	Study on DC conductivity of PPY-ZnO Nanocomposites.	K B Raulkar , T S Wasnik, R V Joat, A S Wadatkar , <b>R M Agrawal</b> , G T Lamdhade	<i>Materials Today</i> (Page No.:595-603), 15 (2019) ISSN: 2214-7853	International

**Research Papers Presented At Conferences/Seminars/ Convention/Workshop:**

Sr. No.	Title of Research Paper Presented	Title of Conference and Duration	Venue
1	Fabrication of multilayer thin films sensor MgO-TiO <sub>2</sub> -Ppy for sensing application of CO <sub>2</sub> gas	Recent Trends in Physics, during 26, 27 Oct 2012	Mungasagi Maharaj Mahavidyalaya, Darwha. M.S.
2	Stannic Oxide Doped with Zinc Oxide based for CO <sub>2</sub> Gas Sensing	National Conference on Materials Science: Trends & Future -2014 during 10-11 Jan. 2014.	Bharatiya Mahavidyalaya, Amravati. M.S.
3	Application of Polypyrrole for CO <sub>2</sub> Gas Sensing at Different Temperature	National Conference on Materials Science: Trends & Future -2014 during 10-11 Jan. 2014	Bharatiya Mahavidyalaya, Amravati. M.S.
4	CuO activated ZnO thick films for H <sub>2</sub> S gas sensing at lower temperature	International Conference on Contemporary Research in Chemical and Life Science during 22-23 April 2015	Sadguru Gadge Maharaj College, Karad, Dist. Satara M.S.

5	Liquid phase synthesis of Zinc Oxide nanoparticles	National Seminar on Emerging Trends in Material Characterization during 9-10 Feb. 2016.	Padmashri Vikhe Patil College of Arts, Science and Commerce, Pravaranagar Ta. Rahata Dist. Ahmednagar (M.S.)
6	Quantum Dot Synthesis and Characterization of Nickel Oxide Nanoparticles	One Day National Seminar on Nanotechnology and Nano engineering (NSNN-2016) on 29 <sup>th</sup> Sept. 2016	Arts, Commerce and Science College, Kiran Nagar, Amravati. (M.S.)
7	Humidity sensing application of PANI doped SnO <sub>2</sub> Nanocomposites	One Day National Seminar on Nanotechnology and Nano engineering (NSNN-2016) on 29 <sup>th</sup> Sept. 2016.	Arts, Commerce and Science College, Kiran Nagar, Amravati. (M.S.)
8	Synthesis of hybrid Zinc oxide/Polyaniline (ZnO/PANI) nanocomposites by Ultra-sonication treatment.	One Day National Seminar on Nanotechnology and Nano engineering (NSNN-2016) on 29 <sup>th</sup> Sept. 2016	Arts, Commerce and Science College, Kiran Nagar, Amravati. (M.S.)
9	Humidity Sensing Characteristics of Porous ZnO/SnO <sub>2</sub> doped thick films. <b>(Abstract)</b> <b>(Poster Presentation)</b>	International Conference on Applied Nanotechnology and Nanoscience". (ICANN-2017) 7 <sup>th</sup> -9 <sup>th</sup> Dec. 2017	Tuljaram Chaturchand of Arts, Science and Commere. Baramati M.S.
10	Zinc Oxide doped Barium Titanium Oxide Nanocompositers Humidity <b>(Abstract)</b>	International Conference on Applied Nanotechnology and Nanoscience". (ICANN-2017)	Tuljaram Chaturchand of Arts, Science and Commere. Baramati M.S.
11	Humidity sensing Mechanism of PANI/ZnO Nanocomposites. <b>(Abstract)</b>	International Conference on Applied Nanotechnology and Nanoscience". (ICANN-2017)	Tuljaram Chaturchand of Arts, Science and Commere. Baramati M.S.
12	PANI doped SnO <sub>2</sub> /ZnO Nanocomposites Humidity Sensor. <b>(Abstract)</b>	International Conference on Applied Nanotechnology and Nanoscience". (ICANN-2017)	Tuljaram Chaturchand of Arts, Science and Commere. Baramati M.S.
13	Study of DC Conductivity of Polypyrrole doped with SnO <sub>2</sub> Nanocomposites. <b>(Abstract)</b>	International Conference on Applied Nanotechnology and Nanoscience". (ICANN-2017)	Tuljaram Chaturchand of Arts, Science and Commerce. Baramati M.S.
14	AC Conductivity and Dielectric studies of ZnO doped Polypyrrole Nanocomposites. <b>(Abstract)</b>	International Conference on Applied Nanotechnology and Nanoscience". (ICANN-2017)	Tuljaram Chaturchand of Arts, Science and Commerce. Baramati M.S.

15	Synthesis and Humidity Sensing Investigation of Nanostructured ZnO doped SnO <sub>2</sub> Thick Films.  <b>(Oral Presentation)</b>	National Conference on “Emerging trends in Science” 1 <sup>st</sup> -2 <sup>nd</sup> Feb. 2019	Vidya Bharati Mahavidyalaya, Amravati
	Zinc Oxide based Nano composite thick film for Water Vapour Sensing Application.  <b>(Oral Presentation)</b>	International Interdisciplinary Virtual Conference On “Drug Disease and Development”. dated 9 <sup>th</sup> , 10 <sup>th</sup> Dec. 2020.	Department of Chemistry and IQAC Mungasaji Maharaj Mahavidyalaya. Darwha

**Publications of chapters in books :**

Sr. No.	Title with page nos./ Chapter with page no.	Book Title, editor & publisher
1	<b>Text Book of Physics.</b> B.Sc. III Sem V Chapter: IV <b>Title:</b> Nuclear Physics. (Page No.: 130- 150) ISO: 9001: 2015	Text Book of Physics <b>Author:</b> 1. Dr. D. S. Chavan 2. Dr. P. A. Nagpure 3. Mr. R. B. Mankar 4. Dr. R. M. Agrawal 5. Dr. D. P. Deshmukh <b>Editor:</b> 1) Dr. A U Ubale 2) Dr. S R Vadrabade 3) Dr. C S Ulhe <b>Publisher:</b> Dnyanpath Publication, Amravati.
2	<b>SOF-10</b> (E-Book Empowering the students with Soft Skills) Section: 6 <b>Ch. No.: 24 - Time as a Resource</b> Page No.: 162-165. ISBN: 9788194757009	SOF-10 (E-Book Empowering the students with Soft Skills) Editor: 10 <b>Publisher:</b> Dr. Dineshkumar Satange Director, Students’ Development, SGBAU, Amravati. <b>Publish by:</b> Sant Gadge Baba Amravati University, Amravati
3	Experimental Technique in Material Science ISBN: 97-3-7487-6665-O	Book Rix
4	An Introduction to Nano materials and Nanotechnology ISBN 13: 978-93-94661-19-6	<b>Author:</b> 1. Dr. R. M. Agrawal 2. Dr. V.U. Rahangdale 3. Dr. D. P. Deshmukh 4. Dr. P. B. Shirbate 5. Dr. S. D. Charpe <b>Editor:</b> 1) Dr. A. B. Lad 2) Dr. G. T. Lamdhade 3) Dr. V. S. Kalayamwar <b>Publisher:</b> DnyanPath Publication, Amravati.

**Conferences/Seminars/ Convention/Workshop Attended:**

Sr. No.	Name of Event	Date of Event	Venue	Level
1.	One day Workshop on Vivekanand's Scientific Approach through Einstein's Brain.	11 <sup>th</sup> Oct. 2011	S.G.B. Amravati University, Amravati.	University Level
2.	<b>मराठी विश्वकोश राजस्पर्धा व ग्रंथप्रदर्शन</b>	10,11 Aug. 2012	Library and Information Science Department, Vidya Bharati Mahavidyalaya, Amravati.	State Level
3.	National Conference on Recent Trends in Physics-2012.	26-27 Oct. 2012	Mungsaji Maharaj Mahavidyalaya, Darwha.	National Level
4.	Summer School on Development and Characterization of Advance Materials	22 Feb. 2013 to 14 March 2013	Department of Physics, Banaras Hindu University, Varanasi.	National Level
5.	Workshop on Quantum Mechanics and Research Methodology.	25 Oct. 2013	Department of Chemistry, Shri Shivaji Science College, Amravati.	National Level
6.	National Conference on Material Science : Trends and Future-2014	10-11 Jan. 2014	Bharatiya Mahavidyalaya, Amravati.	National Level
7.	National level two days laboratory Workshop on Physics for UG Teachers,	27-28 June 2014	Department of Physics, Shri Shivaji Science College, Amravati.	National Level
8.	Oriented Workshop on National Understanding Weather and Climate.	19 <sup>th</sup> July 2014	Vidya Bharati Mahavidyalaya, Amravati.	National Level
9.	Peaceful use of Atomic Energy in the field of Medicine , Agriculture ,Environment , Geology, Chemistry etc.	28 <sup>th</sup> Feb. 2015	Vidya Bharati Mahavidyalaya Amravati.	National Level
10.	Science for National Development (SND-2015)	14-15 March 2015	Visvesvaraya National Institute of Technology, Nagpur. (VNIT, Nagpur)	National Level
11.	One Day National Seminar on Nanotechnology and Nano engineering. (NSNN-2016)	29 Sept. 2016	Arts, Commerce and Science College, Kiran Nagar, Amravati.	National Level
12.	One-Day Workshop on Research Methodology and Perspectives.	26 Nov. 2016	Vidya Bharati Mahavidyalaya Amravati.	National Level
13.	A Workshop for Orientation of Physics Teachers on Revision and Restructuring of UG Physics Syllabi.	22 Jan. 2017	Vidya Bharati Mahavidyalaya Amravati.	University Level

14.	One day Workshop on National Assessment and Accreditation Council Process (NAAC)	23 July 2017	Shri R.L.T. College of Science, Akola	University Level
15.	International Conference on” Applied Nnotechnology and Nanoscience”. (ICANN-2017)	7-9 Dec. 2017	Tuljaram Chaturchand of Arts, Science and Commere. Baramati M.S.	International Level
16.	Consultation Meet on Scouting of Suggestion on Draft of UGC Regulation – 2018.	27 Feb 2018	H.NV.P.M. Hall Amravati.	University Level
17.	National Conference on “Emerging trends in Science”	1 <sup>st</sup> -2 <sup>nd</sup> Feb. 2019	Vidya Bharati Mahavidyalaya, Amravati	National Level
18.	National Conference on “Recent Advances in Science and Technology”	5 -6 March 2019	Gopikabai Sitaram Gawande Mahavidyalaya, Umerkhed	National Level

**M.Sc. Dissertations Supervised : 11 Students**

Sr. No.	Name of PG Students	Title of Dissertation	Year of M.Sc. Awards
1.	Ms. Priti M. Hirulkar	Fabrication of Multilayer (SnO <sub>2</sub> +Fe <sub>2</sub> O <sub>3</sub> +PPY) Thin Films for CO <sub>2</sub> Gas Sensor	2012
2.	Mr. Sanjoykumar S. Maiti	Synthesis of Nano size Stannic Oxide by using Chemical Rout Method	2013
3.	Ms. Ankita H. Gore	Synthesis and Characterization of Stannic Oxide Nanoparticle	2013
4.	Mr. Imran Salim Khan	Fabrication and application of (SnO <sub>2</sub> -TiO <sub>2</sub> ) Thick Films as a Humidity Sensor	2014
5.	Ms. Puja Rathod	Fabrication and application of (SnO <sub>2</sub> -MgO) Thick Films as a Humidity Sensor	2014
6.	Mr. Yasir Ahmad Abid Khan	CO <sub>2</sub> gas sensing properties of ZnO doped CuO thick film sensing	2015
7.	Miss. Neha K. Fating	CO <sub>2</sub> gas sensing of BaTiO <sub>3</sub> doped CuO thick film sensing.	2015
8.	Mr. Kunal C. Shahu	Humidity sensing properties of SnO <sub>2</sub> doped CuO screen printed thick film sensor	2015
9.	Mr. Ritesh S. Joshi	Humidity Sensing properties of BaTiO <sub>3</sub> doped SnO <sub>2</sub> screen printed thick film sensor	2015



10.	Miss. Bhavana Banarse	PANI Doped with ZnO Thick Films for Humidity Sensing Applications.	2016
11.	Mr. Harshal Khedkar	PANI Doped with SnO <sub>2</sub> Thick Films for Humidity Sensing Applications.	2016

**Memberships / Linkages :**

Name of the Organization	Level	Nature of Linkage Annual / Life Membership	Year from which the linkage is established
Indian Association of Physics Teachers	National	Life Member Life Member No. :10864,L7019	2015

**Participation as Resource Person:**

Sr. No.	Name of the activity	Date	Venue	Level
1	<b>Topic:</b> Time Management In Four Day Workshop on Skill Development programme.	22 <sup>nd</sup> to 25 <sup>th</sup> March 2019.	Shri RLT College of Science, Akola	University
2	<b>Topic:</b> Time Management and Goal Setting, In Four Day Workshop on Skill Development programme.	03-06 Oct. 2019.	Shri RLT College of Science, Akola.	University
3	<b>Topic:</b> Goal Setting, In Four Day Workshop on Skill Development programme.	15 Feb. 2020	J D Patil Sangludkar Mahavidyalaya, Darayapur.	University
4	<b>Topic:</b> Role of Non-Teaching in NAAC Accreditation process	29 May 2020.	BS Patel Arts, Commerce and Science College, Pipalgaon Kale.	University
5	<b>Topic:</b> Time Management, One day "Soft Skill Development Programme".	5 May 2021.	BS Patel Arts, Commerce and Science College, Pipalgaon Kale	University

**Extra Curricular and Co-curricular Activities :**

- Presiding Officer (Akola Assembly) Election Training on 18<sup>th</sup> April 2019 at Akola Dist. Akola

**IT Acquaintance:**

- Passed MS-CIT Examination of Maharashtra Knowledge Corporation Limited Mumbai in (Sept-2004).

**University Administrative Contribution:**

- External/Internal Examiner, Valuation, Soft skill Trainer (Certified by UGC HRDC & SGBAU)

**College Administrative Contribution:**

1. **NCC officer:** Associate NCC officer (ANO).
2. **Chairman:** NAAC criteria V (Student Support and Progression)
3. **Member:** Student Representative Council (SRC)
4. **Member:** Parent Teacher Association
5. **Member:** UGC/RUSA Committee
6. **Member:** Admission committee
7. **Member:** Blood Donation and tree plantation Committee
8. **Member:** Schawata Action Plan (MGNCRE) committee