

## DEPARTMENT OF PHYSICS

### REPORT

In this academic year we are pleased to highlight the following activities / achievements of the Department of Physics.

The department of physics is renovated this year and Inauguration of newly renovated department is done at the hands of Hon. Randheer Sawarkar (MLC Member) in presence of Hon. Viplove Bajoriya (MLC Member) on the occasion of death anniversary of late principal M.G. Joshi sir on 24<sup>th</sup> Dec. 2018. It was a good opportunity for the students offering physics to participate in the activities of Sky Observation Club (SOC) of Shri R.L.T. College of Science, Akola. During the programme of 'Eureka' staff of department, were explain experimental information with demonstration of practicals for the students of different school. **Prof. S.R. Jaiswal** conducted online mobile test exam for B.Sc. III year students. Department of physics actively conducted seminars and group discussion for the B.Sc. II and B.Sc. III students. 169 students from B.Sc. II Sem III and 182 students from B.Sc. III Sem V actively participated in **seminar** and as well as 172 students from BSc. II Sem IV and 184 students from B.Sc. III Sem. VI participated in **group discussion** activity. Three teaching staff members continuously participated in research activities. Student of B.Sc. III namely **Yash Vidyasagar, Dipak Lahase, Swapnil Ingle, Tayade** with teacher **Mr. S. R. Jaiswal** demonstrate the Raman Effect effectively with the help of model on the occasion of National Science day on 28<sup>th</sup> Feb 2019.

● **Achievement of Department of Physics :**

1. **Miss Dipali Khaddakar** secured 2<sup>nd</sup> number in the merit list of B.Sc. of Sant Gadge Baba Amravati University Amravati
2. **Miss. Priya Wankhede** secured 6<sup>th</sup> number in the merit list of B.Sc. of Sant Gadge Baba Amravati University Amravati.
3. **Miss. Yoshita Veera** of B.Sc. III participated in the University level "Avishkar Research Festival" 2019, with her project on **low cost dust settler**.
4. **Mr. Nagorao Fulkar** of B.Sc. II participated in the University level "Avishkar Research Festival" 2019, with his project on **Spoil oil control mechanism model**.
5. **Mr. Prashant P. Gedam** clear the 12 week MOOC exam on "**Solid State Physics**" with 77% conductrd by IIT, Kharagpur and funded by Minisrty of HRD Govt. of India.

Teaching staff actively participated in research activity as,

**श्री राधाकिसन लक्ष्मीनारायण तोष्णीवाल विज्ञान महाविद्यालय, अकोला**

• **Research Publication :**

Sr. No.	Name of Faculty	Title of Paper	Name of Journal	Status
1.	Mr. P. P. Gedam	One step galvanostatical synthesis and characterization of acid doped PANI thin films.	<i>Research Journey International E-Research Journal Volume 110, Issue-I, pp 31-34 (Feb-2019)</i> ISSN: 2348-7143 <b>Impact factor: 6.261</b> (UGC Approved Journal)	National
2.	Dr. R.M. Agrawal	Humidity Sensing Properties of BaTiO <sub>3</sub> doped ZnO Thick Films	<i>Ajanta Volume-VIII, Issue-I, pp 33-38(January 2019)</i> ISSN: 2277-5730 <b>Impact factor: 5.5</b> (UGC Approved Journal)	National
		Synthesis and Humidity Sensing Investigation of Nanostructured ZnO doped SnO <sub>2</sub> Thick Films	<i>Research Journey International E-Research Journal Volume 110, Issue-I, pp 25-30 (Feb-2019)</i> ISSN: 2348-7143 <b>Impact factor: 6.261</b> (UGC Approved Journal)	International
		Water Vapour Sensing Mechanism of PANI doped with ZnO Nanocomposites	<i>Research Journey International E-Research Journal Volume 110, Issue-I, pp 250-253 (Feb-2019)</i> ISSN: 2348-7143 <b>Impact factor: 6.261</b> (UGC Approved Journal)	International
		Study of AC Electrical Conductivity and Dielectric Properties of Polypyrrole based ZnO Nanocomposites	<i>Research Journey International E-Research Journal Volume 110, Issue-I, pp 254-258 (Feb-2019)</i> ISSN: 2348-7143 <b>Impact factor: 6.261</b> (UGC Approved Journal)	International
3.	Mr. S. R. Jaiswal	Visible Quantum Cutting in KMgF <sub>3</sub> Co-doped with Gd <sup>3+</sup> and Eu <sup>3+</sup> Phosphor		International

• **Paper Presentation :**

• **Mr. Prashant Gedam :**

1. Presented a research paper entitled "One step galvanostatical synthesis and characterization of acid doped PANI thin films." In UGC sponsored National conference on Emerging Trends in science which is organised by Vidya Bharati Mahavidyal Amravati on Feb. 2019.

2. Presented a research paper entitled "Electrochemically synthesis and characterization of polyaniline thin films." In One day National conference on "Nanomaterials and their applications critical" which is organised by Arts commerce and Science college Kille-Dharur Dist. Beed. On 14<sup>th</sup> Feb. 2019.

• **Dr. R.M. Agrawal :**

1. Presented a research paper entitle "Synthesis and humidity sensing investigation od nanostructured ZnO doped SnO<sub>2</sub> thin films" In UGC sponsored National conference on "Emerging Trends in science" which is organised by Vidya Bharati Mahavidyal Amravati on Feb. 2019.

• **Mr. S.R. Jaiswal :**

1. Presented a research paper entitle "" in International Conference on Luminance and its Applications (ICLA) Jan-2019 at Ravishankar Shukla University, Raipur.

• **Participation in Conference/Seminar/Workshops :**

• **Mr. P.P. Gedam :**

1. Participated in UGC sponsored National conference on Emerging Trends in science which is organised by Vidya Bharati Mahavidyal Amravati on Feb. 2019.

2. Participated in One day National conference on "Nanomaterials and their applications critical" which is organised by Arts commerce and Science college Kille-Dharur Dist. Beed. On 14<sup>th</sup> feb. 2019.

3. Participated in One day national level seminar cum workshop on Art of Perfume & soap making (Skill development and self employment) organised by Shri R. L.T. College of Science, Akola on 8<sup>th</sup> Sept. 2018.

4. Participated in state level seminar on My health my responsibility: complementary to medicine and health care and teachers workshop on Teaching constrains in microbiology and allied sciences organised by Shri R.L.T. College of Science, Akola on 28<sup>th</sup> Feb 2019.

5. Participated in University level PG students seminar competition on Topology organised by shri R.L.T. College of science, Akola on 12<sup>th</sup> March 2019.

• **Dr. R.M. Agrawal :**

1. Participated in UGC sponsored National conference on Emerging Trends in science which is organised by Vidya Bharati Mahavidyal Amravati on Feb. 2019.

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2. Participated in One day national level seminar cum workshop on Art of Perfume & soap making (Skill development and self employment) organised by Shri R.L.T. College of Science, Akola on 8<sup>th</sup> Sept. 2018.

3. Participated in state level seminar on My health my responsibility: complementary to medicine and health care and teachers workshop on Teaching constrains in microbiology and allied sciences organised by Shri R.L.T. College of Science, Akola on 28<sup>th</sup> Feb 2019.

4. Participated in University level PG students seminar competition on Topology organised by shri R.L.T. College of science, Akola on 12<sup>th</sup> March 2019.

5. Participated in UGC sponsored National conference on "Recent Advanced in science and Technology" which is organised by Gopikabai Sitaram Gawande College, Umardhed on 5-6, March, 2019.

• **Mr. S.R. Jaiswal :**

1.. Participated in One day national level seminar cum workshop on Art of Perfume & soap making (Skill development and self employment) organised by Shri R. L.T. College of Science, Akola on 8<sup>th</sup> Sept. 2018.

2. Participated in state level seminar on My health my responsibility: complementary to medicine and health care and teachers workshop on Teaching constrains in microbiology and allied sciences organised by Shri R.L.T. College of Science, Akola on 28<sup>th</sup> Feb 2019.

3. Participated in University level PG students seminar competition on Topology organised by shri R.L.T. College of science, Akola on 12<sup>th</sup> March 2019.

4. Participated in International conference on "Luminance and its Applications (ICLA)" Jan-2019 at Ravishankar Shukla University, Raipur

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

Sr. No.	Name of Faculty	Name of Professional Training/FDP/ Orientation / Refresher Courses	Duration	Venue/Course Undertaken
1.	Mr. P.P. Gedam	MOOC on "Solid State Physics"	12 week	IIT, Kharagpur
2.	Dr. R. M. Agrawal	Train the Trainer Programme.	29 <sup>th</sup> Oct. 2018 to 3 <sup>rd</sup> Nov. 2018.	Faculty Development Cell, Sant Gadge Baba Amravati University, Amravati.

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• **Participation as Resource Person :**

Sr. No.	Name of Faculty	Name of the activity	Date	Venue	Level
1.	<b>Mr. P. P. Gedam</b>	Jury member in District Science exhibition.	1 <sup>st</sup> Jan., 2019	Khirpuri, Akola	District
		Jury member in "World Water Day".	22 <sup>nd</sup> March, 2019	Shri R.L.T. College of Science, Akola	College level
2.	<b>Dr. R.M. Agrawal</b>	Invited talk on Topic "Time Management" in Four Day Workshop on Skill Development Programme.	22 <sup>nd</sup> to 25 <sup>th</sup> March, 2019	Shri R.L.T. College of Science, Akola	University
3.	<b>Mr. S.R. Jaiswal</b>	Invited Talk on Topic "To Know Your Universe" in EUREKA one day workshop for school teachers and student	13 <sup>th</sup> March 2019	Shri R.L.T. College of Science, Akola	Akola District Science Forum
		Invited talk on "THE COSMOS"	18 <sup>th</sup> Dec., 2019	Apoti khurd (afatafa).	College level NNS Camp.

**Mr. Prashant P. Gedam**  
Assistant Professor  
Department of Physics