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#### **GCG-IAPT ANVESHIKA Center**

#### Dr. Ghali College, Gadhinglaj

#### Run by National Anveshika Network of India (NANI)

#### INNOVATIVE LABORATORY FOR DEMO AND MODEL BASED TEACHING

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### **REPORTS**

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### **Activities Run by Center:**

- 1) Demo experiments presentation for school children and school teachers.
- 2) More than 570 demo experiments developed at the center.
- 3) Class wise demo and hands on activities developed and taken each year.
- 4) Science Teachers workshop cum training programe for each year.
- 5) Workshops on designing experiments for B.Sc. students and training to present demonstrations in front of school children.
- 6) Each year our B. Sc. Students visit at least 20 schools to present demonstrations.
- 7) Workshop for school children each year.
- 8) Sky watching programme.
- 9) Small projects for students.
- 10) Skill based all India level experimental test (NAEST) conducted for each year in two different parts consisting part I for school level and part II UG and PG level.

### **Year Reports**

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### Academic year 2015

NAEST 2015 conducted.

### GCG-IAPT Anveshika Center, Dr. Ghali College , Gadhinglaj

### **Report of Programme**

1) Name of the programme: One day Workshop for School Science Teachers

Venue: Department of physics, Dr. Ghali College, Gadhinglaj

**Date and Time:** 16/7/2015 Time 11.00 am to 4.30 PM

**Details of the Programme:** GCG –IAPT Anveshika center organize workshop for science teachers from nearby schools each year. This year we organize the workshop on the subject "**How to choose and do the science projects for school level children".** There are 52 science teachers from Gadhinglaj, Ajara, Chandagad and Bhudargad Tahsil were participated. The programme was inuagrated by Principal Dr. Mangalkumar Patil and Dr. Satish Ghali Director of the Institute present as a chief Guest.

After the inauguration programme, in first session Dr. S. A. Masti delivered a lecture on "How to use internet for basis of Science projects". In this session number of projects was directly discussed with the help of internet. He also presented the knowledge of How to collect the data of weather, temperature, rain, solar flairs, solar cycles and many more. He also explains how to use this data to carry out the certain type of project. For example, one can use the data of rain fall and temperature at any place on the earth from the website <a href="http://www.wunderground.com/">http://www.wunderground.com/</a> and after manipulating this data how to carry out the project for school children. He also pointed out the various terms related with the project which can be very easily understood by students.

In the second session, the Guest lecture on "Understanding the scientific concepts through science projects" delivered by Dr. Satish Ghali. In his speech he presented the information of importance of doing projects and presenting in different exhibitions. Students are very interesting to do science projects but they need inspiration and guidance. If teachers inspire a student then himself students can do the projects with the help of his friends. He can understand the scientific concepts as well as the skills like group discussion, presentation, expressing his concepts etc. In

his speech Dr. Ghali put many examples and concepts of projects. He said that need based projects are necessary to carry out by using the science concepts.

In post lunch session, all teachers are called for group discussion and asked to present at least two project ideas by each group. This is an excellent work. All teachers participated in the discussion and a leader of each group presented the group project.

Before the ending of the programme all the teachers visited the Anveshika center of the college where number of experiments was exhibited. Some of teachers are also shown interest to develop such type of center in their schools. After a simple valedictory function the workshop was ended by providing them attendance certificates. This programme was organized in association with National Children Science Congress.



Guest Lecture by Dr. Shivanand Masti



Participants Present in The workshop

### 2) B.Sc. Students Demo Programmes at Various schools in the region

The total number of programmes conducted by Anveshika Center on Celebration of International year of Light in different schools, colleges and conferences are 66. The number of students benefited by our programme is more than 6000. There are number of schools who have neither laboratory facilities nor libraries to read the books to the students, also we visited two schools of differently abled students it is tremendous challenge for us how to communicate with them but teachers in their schools helps us they translate what we say in their expression language. There are 23 remote schools where there is no direct roads to reach and bus facilities. But our college students enthusiastically walk 3 to 4 KM and presented the experiments in front of students. They feel very great.

### **Students Group formed for Demo Programme**

Sr. No.	Group	Name of Students	Mobile Number	Number of
	Number			Programmes
				Conducted
1 1	Group I	Suraj Raijade	8390057083	20
		Yuvraj Lokhande		
		Parashram Rajgole		
2	Group II	Chetan Taral	9096353500	18
		Mayur Shewale		
		Suraj Kumbhar		
3	Group III	Kadarbhai Najir	9421165153	13
	-	Dattatray Sutar		
		Shivaraj Patil		
4	Group IV	Sandesh Shrirsagar	9545937695	12
		Amar patil		
		Sagar Kalgonda		
5	Group V	Pranali Deasi	9552164811	3
	-	Archana Patil		
		Prinyanka Manture		
		Pooja Navalgi		
		, ,		
	66			

(The number still increasing as students perform more programmes on request of Schools)

[We also involve the students from the other (Shivaraj College) college, on their request]

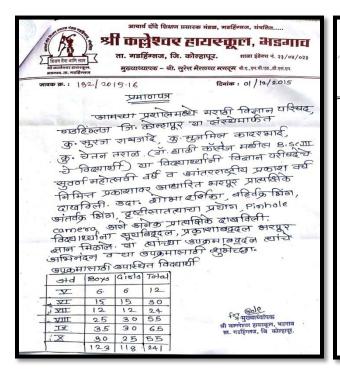
### The Details of the Programme

Sr. No.	Date	Place of Programme	Name of the School	Head Master/Phone no. of School	Number of Students Present	
1	01/12/2015	Uttur	Vasantdada Patil Vidyalaya, Uttur	02323-254480	108	
2	07/11/2015	Pinpalgaon	Pinpalgaon Vidyalaya Pinpalgaon		102	
3	08/11/2015	Belewadi Tal- Ajara	Shri. H.B. P. Laxaman Balvant CHorage Madyamik Vidyalay Belewadi	9096956012	153	
4	18/11/2015	Mattiwade (Karnataka)	Madyamik Vidyalaya Mattiwade		100	
5	18/11/2015	Nangnoor (Karnataka)	Panchkrashi Vidyalaya Nangnoor	09480327940	97	
6	20/11/2015	Sankeshwara (Karnataka)	S.D. Highschool Karnataka	08333-273349	187	
7	20/11/2015	Sankeshwara (Karnataka)	Hiryankeshi Shikshan Madal Vidyaniketan Sankeswar		91	
8	20/11/2015	Sankeshwara (Karnataka)	Akkamahadevi Kannyashale Sankeshwar	08333-273381	440	
9	24/11/2015	Nool Tal- Gadhinglaj	Shri. Ramling Highschool Nool	9420131346	43	
10	24/11/2015	N Nangnoor (Karnataka)	Shri. Ram Highschool Nangnoor	02327-223911	282	
11	24/11/2015	Khandal Tal- Gadhinglaj	New English School Khandal	02327-248131	121	
12	27/11/2015	Halkarni Tal- Gahinglaj	Halkarni Bhag Highschool Halkarni	02327-264263	335	
13	27/11/2015	Narewadi Tal- Gadhinglaj	Mahatma Gandhi Highschool Narewadi		85	
14	01/2/2016	Harali Tal- Gadhinglaj	Hiryankeshi Vidyalaya Harali	02327-274023	183	
15	01/2/2016	Bhadgaon	Kalleshwar Highschool Bhadgaon		241	
16	03/12/2015	Lingnoor	Vidyamandir Lingnoor		80	
17	03/12/2015	Bekanal	Vidyamandir Beknal		43	
18	04/12/2015	Shendri	Prathmik Vidyamandir Shendri		125	
19	04/12/2015	Vadarge Tal- Gahdinglaj	Jevan Shikshan Mandir Vadarge		108	
20	05/12/2015	Hebbal	Kendra Shala Hebbal		124	
21	05/12/2015	Hebbal	Kanya Vidyamandir Hebbal		70	
22	12/12/2015	Gadhinglaj	Jagruti Highschool Gadhinglaj		90	
23	13/12/2015	Gadhinglaj	Jagruti Junior College Gadhinglaj		93	

24	14/12/2015	Amboli Dist Sindudurg	Amboli Public School Amboli Dist- Sindhudurg		
25	29/12/ 2015	Uttur	Parvati Shankar Vidyalaya, Uttur, Tal- Gadhinglaj		250
26	30 /1/ 2016	Aurnal	Parvati High School, Aurnal	Nadaf H.R 9403232399	90
27	30 /1/ 2016	Aurnal	New Horizon School, Aurnal	Sunita Patil 9421173606	65
28	20/12/ 2015	Kowad, Tal- Chandagad	Sri Ram Vidyalay Kowad	A.S.Patil 9921042510	232
29	20/11/2015	Nipani, Karnataka	Modern English School, Nipani		58
30	20/12/ 2015	Nipani, Karnataka	Goverenment Kannada Medium School, Nipani		66
31	21/12/ 2015	Nipani, Karnataka	Municipal School Nipani		55
32	1/1/2016	Nool,	New English School, Nool		67
33	2/1/2016	Hadalage	Sri. Shankarrao Shinde Vidyalay, Hadalage	S.M. Mohengegar 9421112641	122
34	3/1/2015	Kumari	Sri. Ravalnath Madyamik Vidyalaya, Kumari	Shri. Dinkar Patil 02327270095 9405653652	43
35	11/12/.2015	Aradal, Tal- Ajara	Madyamik Vidyalaya, Ardal	Shri. Shankar Pavle 9822420233	56
36	12/12/ 2015	Gadhinglaj	Shri. V.V. Shinde Highschool,, Gadhinglaj	Shri. S.R. Patil	204
37	13/12/ 2015	Amboli	Shri. Rannarayan School Amboli Tal. Sawantwadi, Dist Sindhudurg		123
38	17/12/ 2015	Begawade	Sri Laxmi Highschool, Begawade, Tal- Bhudargad		45
39	01/12/2015	Gadhinglaj	Barrister Nath Pai Vidhyalay, Gadhinglaj		46
40	3/11/2015	Kadgaon	Kedarling Highschool, kadgaon		120
41	7/11/2015	Mangnoor- Savatwadi	Mangnoor-Savatwadi Highschool, Mangnoor- Savatwadi		55
42	7/2/2016	Hebbal Jaldyal	New English school Hebbal Jaldyal		140
43	10/12/2015	Batkangle	Mahatma High school Batkangle		94
44	16/1/2016	Badyachiwadi	Shri. Bhairavnath, Highschool		85

			Badyachiwadi				
45	17/12/2015	Gadhinglaj	Savitribai Phule, Highschool,	105			
			Gadhinglaj				
46	9/12/2015	Gadhinglaj	Niora Highschool, Gadhinglaj		50		
47	13/12/2015	Gadhinglaj	Kalu Master Vidyala, Gadhinglaj		38		
48	2/12/2015	Gadhinglaj	Creative Highschool, Gadhinglaj		214		
49	4/12/2015	Gadhinglaj	Sant Ann's school, Gadhinglaj		145		
50	14/12/2015	Bhadgaon	Kendrashala Bhadgaon		46		
51	14.12.2015	Kaulage	New English School, Kaulage		65		
52	23/12/2015	Karambali	Savitribai Phule Highschool,		100		
			Karambali				
53	16/12/2015	Hanimnal	New English School, Hanimnal		74		
54	17/12/2015	Hasurchampu	Y.G. Highschool, Hasurchampu	Y.G. Highschool, Hasurchampu			
55	16/12/2015	Hanimnal	Bhairav Public School Hanimnal	34			
56	03/12/2015	Shipur	Vidhyamandir shipur	113			
		(Ajara)					
57	03/12/2015	Jakkewadi	Vidhyamandir Jakkewadi		47		
		(Ajara)					
58	03/12/2015	Lingnur	Vidhyamandir Lingnur		80		
		Nool(ka)					
59	01/12/2015	Gadhinglaj	Govindrao S mali	9421383320	58		
			highschool,gadhinglaj.				
60	03/12/2015	Gadhinglaj	Chatarpati shivaji	02327-222312	127		
			vidhyalaye,gadhinlaj				
Total Students Benefited on 22/2/2016 6							

### Some of the scanned School Letter





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### पिंपळगांव विद्यालय,पिंपळगांव

ता. भुदरगड, जि. कोल्हापूर शाळा सांकेतांक : २३.०२.००८

जा.क्र.पिं.वि.पिं.

2015/2016

दिनांक: 07 / 10 /२०15

प्रमाणपत्र

प्रमाणपत्र देणेत येते, डॉ . घाळी कॉलेज, गडहिंग्लज येथील

१ सुरज शिवाजी रायजादे

बी. एस्स. सी. भाग ३

२ मुजम्मिल नजीर कादरभाई

बी. एस्स. सी. भाग ३

या विद्यार्थ्यांनी आज बुधवार दि. ०७/१०/ २०१५ रोजी आंतरराष्ट्रीय प्रकाश वर्ष निमित्य आमच्या विद्यालयात इयत्ता ८ वी ते इ. १० वी मधील विद्यार्थ्यी विद्यार्थीनीना मराठी विज्ञान परिषद गडिंग्लज "अंतर्गत प्रकाश आणि प्रकाशाशी निगडीत तंत्रज्ञान" या विषयावर मार्गदर्शन केले. सदरचे मार्गदर्शन विद्यार्थ्याना उपयुक्त असून त्यांच्या कडून चांगला प्रतिसाद मिळाला.



# Some of the Programme Photos

# (Other photos attached as a Folder)





















### <u>Programmes at Differently abled School</u> (Depth and Cannot speak)











**Programme at IAPT Annual Convention of RC-8** 







# GCG-IAPT Anveshika Center, Dr. Ghali College, Gadhinglaj Report of Programme

1) Name of the programme: A Series of Lecture on Light properties and Light based technologies

Venue: Different Schools in Gadhinglaj, Ajara Chandgad Tahshil and Nipani in Karnataka

Date and Time: Nov.15 to December 18, 2015

**Details of the Programme:** To celebrate the International year of Light 2015 (IYL 2015) GCG-IAPT Anveshika Center Gadhinglaj organized a series of Lecture to popularize the Light based technologies and importance of light. The co-ordinator of the Anveshika center Dr. Shivanand Masti delivered 17 lectures in different schools and colleges. In each lecture of Dr. Masti, there is a power point presentation and some of the simple light experiment demonstrations. The list of schools where the programmes were organized is listed below.

Sr. No.	Place	Name of the School/College	Number of	Date
			students	
1	Uttur	Parvati Shankar Vidyalaya, Uttur, Tal- Gadhinglaj	250	29 Oct 2015
2	Aurnal	Parvati High School, Aurnal	90	30 Oct 2015
3	Aurnal	New Horizon School, Aurnal	65	30 Oct 2015
4	Kowad, Tal- Chandagad	Sri Ram Vidyalay Kowad	232	20 Oct 2015
5	Nipani,	Modern English School,	58	20 <sup>th</sup> Nov. 2015
	Karnataka	N pani		
6	Nipani,	Obver ennent Kannada	66	20 <sup>th</sup> Nov. 2015
	Karnataka	Medium School, N pani		
7	Nipani, Karnataka	Muni ci pal School N pani	55	21st Nov. 2015
8	Nool,	New English School, Nool	67	1 <sup>st</sup> Dec. 2015
9	Hadalage	Sri. Shankarrao Shinde Vidyalay, Hadalage	122	2 <sup>nd</sup> Dec. 2015
10	Kumari	Sri. Ravalnath Madyamik Vidyalaya, Kumari	43	3 <sup>rd</sup> Dec. 2015
11	Ar adal,	Madyamik Vidyalaya, Ardal	56	11Dec.2015
	Tal-Ajara			
12	Gadhinglaj	Jagruti Highschool, Gadhinglaj	204	12 Dec. 2015
13	Amboli	Amboli Public school, Tal.	334	13 Dec. 2015

		Sawantwadi, Dist Sindhudurg		
14	Begawade	Sri Laxmi Highschool,	45	17 Dec. 2015
		Begawade, Tal- Bhudargad		

Through this programme more than 1400 students benefited. We now plan to organize students demo programme. The villages/ highschools are chosen such that there is problem of science Laboratory and other facilities. The remote region students are found to be very enthusiastic as well as eager to learn more knowledge. The program was organized in association with Marathi Vidnyan Parishad. Some of the program photos are presented below.









# GCG-IAPT Anveshika Center, Dr. Ghali College , Gadhinglaj Report of Programme

1) Name of the programme: Two Days Workshop on "Light based Experiments" for Students

Sponsored by IAPT RC-8

Venue: Department of physics, Dr. Ghali College, Gadhinglaj

**Date and Time:** 29/12/2015 and 30/12/2015

Level- UG

Number of students Present -156 from surrounding nine colleges

**Details :** Two days science workshop for UG level was organized on 29<sup>th</sup> and 30<sup>th</sup> December 2015. In this workshop our trained students presented their light based demo experiments and myself Dr. Shivanand Masti Presented PPT and other demo experiments. There were 156 participants from nine different colleges and 12 teachers.









1) Name of the programme: Celebration of National Science Day

Venue: Department of physics, Dr. Ghali College, Gadhinglaj

**Date and Time:** 26<sup>th</sup> February 2016

Level- UG

**Number of students Present -334** 

**Details :** The programme was organized in association with Dr. Ghali College, Gadhinglaj. Shri. Dayanand Devmore inaugurated the programme and present their speech on "Secret Nitant Sundar Jevanache (Secret of peaceful life)". Followed by the inaugural function there is science exhibition in our Department, where 23 experiments presented and also a poster presentation on "Gravity Waves".

### GCG-IAPT ANVESHIKA, Dr. Ghali College, Gadhinglaj Dist Kolhapur Programs in 6 months: (December to March)

S.N	Date	Title of	Nature of	Resource	Participatin g Teachers		Participating students		Financial
0		programme	Programme	Person	No.	Lev el	No	level	Assistance from NANI
1.	23/12/2014	Demo Experiments	Hands on activities for students	Dr. S. A. Masti Dr. S. K. Nerle			105	Up to 10 <sup>th</sup> STD	None
2.	3/1/2015	Physics Experiments Demo presentation	Demo Programme in Bal Vigyan Samelan, Nool.	B. Sc. Students from Dr. Ghali College, Gadhingl	5	-	More than 900 students visited to our presenta tion room	Up to XII STD	None
3.	20/2/2015	Sky watching programme	Sky observations and use of softwares for sky watching	Dr. S. A. Masti	13	Hig h scho ol	135 students	Upto X STD	None
4.	26/2/2015	Guest Lecture	Lecture on "Vedh Vishwache"	Dr. Nitin Shinde Islampur, Sangli	24	UG leve l	256	UG and PG level	None
5.	28/2/2015	Science Exhibition	Exhibited more than 65 experiments in the Department	All UG students	4	UG leve l	Visited more than 600 students from nearby highsch ools	High scho ol level	None

Dr. S.A. Masti

GCG- IAPT Anveshika Co-ordinator

### Academic year 2016

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1) NAEST 2016 conducted.

#### **Short Highlight:**

- 1) Essay competition for UG level and teachers level organized and finally 13 Essays from UG level and 2 essays of Teachers were submitted to Prof. K. Joshipura.
- 2) The screening test were conducted at four different places and 347 students from 23 schools and 234 students from UG level participated from number of places from Maharashtra.
- 3) On day science teachers workshop was held in Department of Physics Dr. Ghali College, Gadhinglaj where 46 teachers participated.
- 4) At our place we are going to organize four Bal vigyan Sammelan at Uttur, Nesari, Nool and Ainapur in Gadhinglaj Tahsil of Kolhapur District. In each Sammelan we planning to put science research project competition. For that purpose Our Anveshika center is going to organize guidance workshop for school level students on "How to do the research project" in which the content of the report as well as we are providing the different topics related to the village problems an dactivities. They will form 2 to 3 students gropu and carry the data collection either experiment, survey or Interview and questionnaire method they analyse the data and discuss the results and make some suggestions. The report will be submitted to the either of above four Bal Vigyan Sammelan or can participate in all places. These

Bal vigyan Sammelan will be held in First week of December. Now we are going to organize workshops at all centres so that surrounding schools and students will benefit and maximum nuber of groups will participate in the Sammelan. These Bal vigyan Sammelan were organized in Association with Marathi Vigyan Parishad Gadhninglaj where I am co-convener.

- 5) A poster presentation on occasion of Dr. Abdul Kalams First Anversiary on 15 Sept 2016.
- 6) We are also planning to carry B.Sc. students demo programme at different schools after sanctioning the proposal from you.

















### 2) Nool Bal Vigyan Sammelan (5/12/16)













### 2) Uttur Bal Vigyan Sammelan (7/12/16)













### GCG-IAPT Anveshika Center, Dr. Ghali College, Gadhinglaj

One day workshop on "School Bag- Laboratory"

### **Report of Programme**

Name of the programme: One day workshop on "School Bag- Laboratory"

Venue: Dr. Ghali College, Programme Hall

Date and Time: 16<sup>th</sup> Dec 2016

Details of the Programme: GCG- IAPT Anveshika Center Gadhinglaj in association with Indian Association of Physics Teachers RC-8 organized one day workshop on One day workshop on "School Bag- Laboratory". In this workshop more than 100 students from seven different schools were participated. The programme was inaugurated by Principal Dr. Mangal kumar Patil. The programme Chief guest was Prof. Vivek Wagh from Nagpur (President, IAPT RC-8) guided the students to construct the number of different sets of experiments by using school bag materials. He also demonstrated how to build balance and how to measure the density, volume, Buoyancy force etc by using the balance. He also carried out the experiments with multimeter and students used multimeter for different readings like body voltage, cell voltage, different resistances capacitors etc. Overall the full day workshop was successful and students learn many terms like volume, density, voltage, resistance, ECG etc. In the last session students expressed satisfaction with the programme and also recommend organizing more in future. The co-ordinator Dr. Shivanand Masti expressed thanks to IAPT RC-8 for giving opportunity to organize the workshop and hope IAPT RC-8 also provide support in future. The list of schools participated in the workshop are listed below.

- 1. New Horizon School, Aurnal.
- 2. Parvati High school, Aurnal.
- 3. Jagruti High School, Gadhinglaj.
- 4. Kilbil English medium School Gadhinglaj.
- 5. Girls High School Gadhinglaj
- 6. Sadhana High School Gadhinglaj
- 7. Creative School, Gadhinglaj

### **Programme Photos**





























### B.SC. STUDENTS DEMO PROGRAMMES AT VARIOUS SCHOOLS IN 2016-17













### YEAR 2017 REPORTS

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### 1) Science Teachers Workshop













