## REPORT ON HANDS ON TRAINING IN PHYSICS



JAYSINGPUR COLLEGE JAYSINGPUR **ORGANIZED BY** 

## DEPARTMENT OF PHYSICS

THURSDAY: 03.08.2023



## Jaysingpur College, Jaysingpur





One Day Workshop on Hands on Training in Physics



Wednesday, 03/08/2023

Speaker

Dr. R.N. Dhekale, CEO, Perfect Electronics, Wai.

Dr. M.V. Kale Vice-Principal

Jaysingpur College, Jaysingpur

Dr. S.A. Manjare Principal

Jaysingpur College, Jaysingpur

Dr. S.R. Sabale Dr. P.P. Chikode
DBT-STAR Coordinator Convener

Dr. S.S. Mahajan Mr. Aksh

Mr. Akshay Mane

Dr. R.D.Kale

Head, Dept. of Physics Mr. Aman Mujawar

OR OF STREET

VENUE: Department of Physics, Jaysingpur College, Jaysingpur

#### Name of Activity: HANDS ON TRAINING IN PHYSICS

Year:	2022-23
Name of the Activity:	Hands-on Training
Date:	3.08.2023
Venue:	Jaysingpur College Jaysingpur
Co-ordinator:	Dr. P.P. Chikode
Organized for:	Science Students
No. of Participants students	26
Teachers	05
Nature:	Academic
Chief Guest/s or Resource	Dr. R.N. Dhekale,ŒO,
Person/s	Perfect Electronics, Wai.
	Former, Associate Professor,
	Kisan Weer Mahavidyalaya, Wai

Hands-on Training plays an important to avail the various career opportunities in Physics after graduation. Hence Dept. of Physics invited Dr. Dhekale, Perfect Electronics, Wai to elaborate on various basic concepts in physics after graduation and post-graduation for B.Sc. Physics by conducting hands-on training on 03/08/2023. Dr. P.P. Chikode welcomed the guest. Dr. R.D. Kale felicitated the guest. He explained the scope of the physics syllabus in accordance with the Industry and explained various terms and conditions related to understanding conceptual physics. He also focused on basic physics experiments which are useful for understanding various concepts in thermodynamics, electricity, magnetism, angular momentum, and classical Physics. At the end, he also spoke on interview techniques and group discussionto be conducted in Industry.

Dr. S.S. Mahajan proposed vote of thanks.

#### Photos of the event



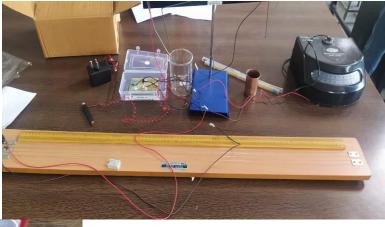
Dr. Dhekale along with participants of workshop





Welcome by Dr. Chikode P.P.

Various Practical demo experiments shown to students



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Dr. Prashant P. Chikode
Asst. Professor, Dept. of Physics,
Jaysingpur College, Jaysingpur
Tal. Shirol, Dist. Kolhapur 416 101
Mob. 9422408462

Email - prashantchikode@gmail.com

PROJECT INVESTIGATOR

Dr. Sandip R. Sabale

Coordinator

DBT-STAR College Scheme

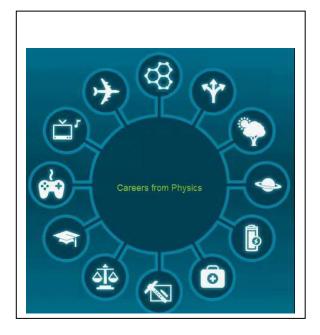
Jaysingpur College, Jaysingpur

HEAD OF THE INSTITUTION

Dr. Surat A. Manjare
PRINCIPAL
Jaysingpur College, Jaysingpur

#### REPORTON

## ONE-DAY SEMINAR ON CAREER OPPORTUNITIES IN PHYSICS



JAYSINGPUR COLLEGE JAYSINGPUR

# ORGANIZED BY DEPARTMENT OF PHYSICS

SATURDAY:20.05.2023



#### Jaysingpur College, Jaysingpur Department of Physics



## One Day Workshop on Career Opportunities in Physics



Saturday, 20/05/2023

Speaker

Mrs. V.S. Dhobale, Assistant Professor D.K.A.S.C., Ichalkaranji

Dr. M.V. Kale Vice-Principal

Jaysingpur College, Jaysingpur

Dr. S.A. Manjare Principal

Jaysingpur College, Jaysingpur

Dr. S.R. Sable
DBT-STAR Coordinator
Dr. S.S. Mahajan

Dr. P.P. Chikode Convener Mr. Akshay Mane Dr. R.D.Kale Head, Dept. of Physics Mr. Aman Mujawar

VENUE: Department of Physics, Jaysingpur College, Jaysingpur

## Name of Activity: ONE-DAY WORKSHOP ON MATHEMATICAL METHODS IN PHYSICS

Year:	2022-23
NameoftheActivity:	One Day workshop on CAREER OPPORTUNITIES IN PHYSICS
Date:	20.05.2023
Venue:	Jaysingpur College, Jaysingpur
Co-ordinator:	Dr. P.P. Chikode
Organized for:	B.Sc. III Physics Students
No. of Participant students	16
Teachers	04
Nature:	Academic
Chief Guest/s or ResourcePerson/s	Mrs. V.S. Dhobale Assistant professor, Dept. of Physics, DKASC College, Ichalkaranji.

A workshop on career opportunities in physics can be highly beneficial for students, researchers, and individuals interested in pursuing a career in this field. Such a lecture can provide valuable insights, guidance, and motivation, shaping the career paths of those attending. It is important to avail the various career opportunities in Physics after graduation. Hence Dept. of Physics invited to Mrs. Dhobale V.S., DKSC, Ichalkarnji to elaborate on various fields in Physics after graduation and post-graduation on SATURDAY, 20 May 2023. Dr. S.S. Mahajan welcomed the chief guest. In her lecture, she explored diverse career paths available to physics graduates, including academia, research, industry, and entrepreneurship. She also highlighted various specializations within physics, such as theoretical physics, experimental physics, astrophysics,

condensed matter physics, and more. She had explained various careers other than research such as teacher, data analyzer, X-ray machine operator etc. Students keenly listened to the various careers in front of them and asked various quires and a long group discussion took place among them.

Dr. P.P. Chikode proposed a vote of thanks.



Dr. Prashant P. Chikode Asst. Professor, Dept. of Physics, Jaysingpur College, Jaysingpur Tal. Shirel, Dist. Kolhapur - 416 101 Mob. 9422408462

Email - prashantchikode@gmail.com

PROJECT INVESTIGATOR

Dr. Sandip R. Sabale Coordinator

DBT-STAR College Scheme Jaysingpur College, Jaysingpur HEAD OF THE INSTITUTION

Dr. Surat A. Manjare PRINCIPAL

Jaysingpur College, Jaysingpur



## Jaysingpur College, Jaysingpur Activity Report

Year:	2022-23
Name of the Activity:	Celebration of A.P.J. Abdul Kalam Birth
	Anniversary
Date:	15/10/2022
Venue:	Department of Physics
Co-ordinator:	Dr P.P. Chikode
Organised for:	B.Sc. II/III students
College/class/staff	
No. of Participants	60
Nature:	Academic
(e.g. Academic, cultural, sports etc)	
Objectives of the Activity	To inculcate the qualities of Dr. APJ Kalam to
	the students
Report	Department of Physics, Jaysingpur College, Jaysingpur had Celebrated Birth Anniversary of A.P.J. Abdul Kalam on 15/10/2022.  The celebration of APJ Abdul Kalam Jayanti holds significant importance as it honors the life and contributions of one of India's most beloved and respected personalities, Dr. Avul Pakir Jainulabdeen Abdul Kalam. Here are some reasons highlighting the importance of celebrating APJ Abdul Kalam Jayanti;  1) Inspiration for Youth 2) Educational Legacy
	A.P.J. Abdul Kalam was a great nuclear scientist and former president of India. His life story and achievements are always inspiring tools to the students. Hence we have celebrated Birth Anniversary of A.P.J. Abdul Kalam. Girl students from B.Sc.II and III had given a short speech on him. Dr Chikode had given brief information about Dr. Kalam. Students also told some short stories of inspiration about him. One student read a poem on him prepared by his own. The long discussion was done on his autobiography. Department of Physics circulated the two copies of his book "The Wings of fire" free to the students for the reading. This programme is supported by the DBT-Star Scheme.
Outcome	Students have known the whole life story,
	achievements and work done performed by Dr.
	APJ Kalam. They have also been encouraged to
	do their career as a nuclear scientist in future.

#### Celebration of A.P.J. Abdul Kalam Birth Anniversary





Dr. Prashant P. Chikode
Asst. Professor, Dept. of Physics,
Jaysingpur College, Jaysingpur
Tal. Shirol, Dist. Kolhapur - 416 101
Mob. 9422408462
Email - prashantchikode@gmail.com

Dr. Sandip R. Sabale

Coordinator

DBT-STAR Coilege Scheme

Jaysingpur College, Jaysingpur

PROJECT INVESTIGATOR

Dr. Surat A. Manjare
PRINCIPAL
Jaysingpur College, Jaysingpur

HEAD OF THE INSTITUTION



## Jaysingpur College, Jaysingpur Activity Report

Year:	2022-23
Name of the Activity:	Exhibition of "Bombings of Hiroshima and
	Nagasaki" by B.Sc. III students.
Date:	29/08/2023
Venue:	Department of Physics
Co-ordinator:	Dr. P.P. Chikode
Organized for:	B.Sc. III Physics students
College/class/staff	
No.of Participants	45
Nature:	Academic
(e.g. Academic, cultural, sport setc)	
Objectives of the Activity	Exhibition of "Bombings of Hiroshima and
Industry and Director	Nagasaki"  Dr. R. D. Kale Head, Dept. of Physics
Industry and Director	
Report	The bombings of Hiroshima and Nagasaki were pivotal events during World War II, marking the first and only instances in which nuclear weapons were used in warfare. These devastating attacks occurred in August 1945, leading to Japan's surrender and ultimately ending the war. Nuclear energy is the most important energy. America demolished Hiroshima and Nagasaki the two cities of Japan by throwing nuclear bombs on them. That causes a lot of damage to living people in Japan. The radiation from this bomb destroyed the population for three decades. It showed that nuclear energy can become very much harmful to mankind. To show the bad effects of radiation and to give the message of peace, Dept. of Physics organized Exhibition of "Bombings of Hiroshima and Nagasaki" on 29/08/2023. Students prepared informative posters on the various stages of bombings. The bombings of Hiroshima and Nagasaki remain subjects of historical study, ethical reflection, and global discussions on nuclear disarmament. The events of August 1945 have left an enduring legacy, shaping the post-war world and influencing global perspectives on the use of nuclear weapons. Those were very informative pictures and remembered the bad condition of the Japanese. Students displayed mushroom clouds, nature of bombs, radiation effects etc. in
Outcome	posters. The event is supported under star DBT scheme.  Students understand various opportunities of
Outcome	Students understand various opportunities of Physics in Industry.

#### Exhibition of "Bombings of Hiroshima and Nagasaki"



#### Inaugural function of exhibition





Students explaining the posters on Hiroshima Nagasaki Bombings

Dr. Prashant P. Chikode Asst. Professor, Dept. of Physics, Jaysingpur College, Jaysingpur Tal. Shirol, Dist. Kolhapur - 416 101 Mob. 9422408462 Email - prashantchikode@gmail.com

PROJECT INVESTIGATOR

Dr. Sandip R. Sabale Coordinator

DBT-STAR College Scheme Jaysingpur College, Jaysingpur HEAD OF THE INSTITUTION

Dr. Surat A. Manjare PRINCIPAL

Jaysingpur College, Jaysingpur



### Jaysingpur College, Jaysingpur Activity Report

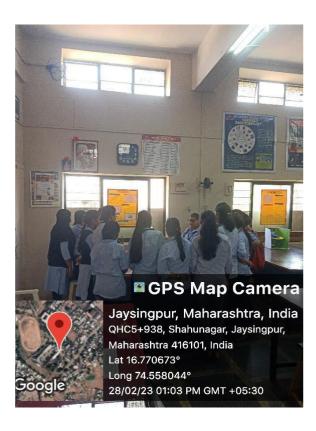
Year:	2022-23
Name of the Activity:	Model Presentations in Physics
Date:	28/02/2023
Venue:	Department of Physics
Co-ordinator:	Dr. P.P. Chikode
Organized for:	B.Sc. III Physics students
College/class/staff	17
No. of Participants	16
Nature: (e.g. Academic, cultural, sports etc)	Academic
Objectives of the Activity	To prepare various models in Physics
Industry and Director	Dr. R.D. Kale Head ,Dept. of Physics
Report	To develop the skill of preparation of models for effective presentations, the Dept .of
	Physics organized model competition of B.Sc.
	III physics students on 28/02/2023 at 3.00 pm
	in the department of Physics. Overall, the use
	of model competitions in physics serves as a
	dynamic and engaging method to inspire and
	cultivate the next generation of physicists. These
	competitions not only enhance participants'
	understanding of theoretical concepts but also
	equip them with practical skills and a passion for
	pushing the boundaries of scientific knowledge.  Model competitions encourage participants to
	explore unconventional and innovative
	approaches to problem-solving. This fosters a
	culture of innovation within the physics
	community and can lead to the development of
	novel ideas and methodologies. Students
	prepared informative models on various themes
	provided to them. Using cardboard sheets,
	thermocol, thick papers they have prepared
	models of the cyclotron, windmill, power
	generation, etc. The models are judged by panels
	of two outside experts in physics. They evaluated the models and asked for the
	information of models to students. Students
	demonstrated as well as explained their
	respective models very well. Three awards are
	given to the best three models. The event is
	supported under Star DBT scheme.
Outcome	These physics model competitions incorporate
	elements of computational physics amongst
	students. Competitors develop skills in
	numerical methods, simulation techniques, and
	coding, which are increasingly essential in
	contemporary physics research.

#### **Model Competition**



Students explaining the models





Participants observing models

Dr. Prashant P. Chikode
Asst. Professor, Dept. of Physics,
Jaysingpur College, Jaysingpur
Tal. Shirol, Dist. Kolhapur - 416 101
Wob. 942248462
Email - prashantchikode@gmail.com

Dr. Sandip R. Sabale

Coordinator

DBT-STAR College Scheme

Jaysingpur College, Jaysingpur

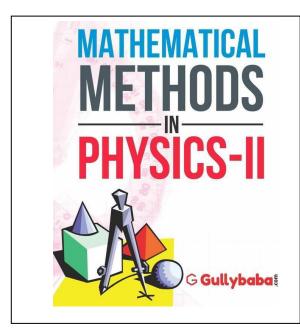
PROJECT INVESTIGATOR

HEAD OF THE INSTITUTION

Dr. Surat A. Manjare
PRINCIPAL
Jaysingpur College, Jaysingpur

#### REPORT ON

## ONE-DAY WORKSHOP ON MATHEMATICAL METHODS IN PHYSICS



JAYSINGPUR COLLEGE JAYSINGPUR

## ORGANIZED BY DEPARTMENT OF PHYSICS

THURSDAY:04.01.2024



#### Jaysingpur College, Jaysingpur Department of Physics



#### One Day Workshop on Mathematical Physics



Thursday, 04/01/2024

Speaker

Mr. Ajit Deshmukh, Founder Prabhas Science Academy, Kagal.

Dr. M.V. Kale Vice-Principal

Jaysingpur College, Jaysingpur

Dr. S.A. Manjare Principal

Jaysingpur College, Jaysingpur

Dr. S.R. Sable
DBT-STAR Coordinator
Dr. S.S. Mahajan

Dr. P.P. Chikode Convener Mr. Akshay Mane Dr. R.D.Kale Head, Dept. of Physics Mr. Aman Mujawar

VENUE: Department of Physics, Jaysingpur College, Jaysingpur

## Name of Activity: ONE-DAY WORKSHOP ON MATHEMATICAL METHODS IN PHYSICS

Year:	2023-24
Name of the Activity:	Workshop on MATHEMATICAL METHODS IN PHYSICS
Date:	04.01.2024
Venue:	Jaysingpur College, Jaysingpur
Co-ordinator:	Dr .P.P. Chikode
Organized for:	B.Sc. II Physics Students
No.ofParticipant students	12
Teachers	04
Nature:	Academic
Chief Guest/s or Resource Person/s	Mr. Ajit Deshmukh (Kamble) CEO, Prabhas Science Academy, Kagal.

A workshop on mathematical methods in physics is a specialized event designed to explore and discuss the various mathematical tools and techniques used in the field of physics. These workshops aim to enhance the understanding and proficiency of physicists, researchers, and students in applying advanced mathematical methods to address complex problems in physics. The workshop aims to delve into a range of mathematical methods essential for theoretical and applied physics, including but not limited to calculus, differential equations, linear algebra, complex analysis, and probability theory. Therefore Dept. of Physics organized a one-day workshop on mathematical methods in Physics on 04/01/2024. Dr. R.D. Mane felicitated the resource person Mr. Ajit Deshmukh (Kamble), and gave his brief introduction. Dr. S.S. Mahajan mentioned the

objectives of the workshop. He explained the scope of the mathematics syllabus in Physics. In his initial speech, Mr. Kamble elaborated that mathematics is a tool to run Physics. He explained various mathematical terms such as complex numbers, matrices, limits, and derivatives with lucid examples. Students asked many questions to the speaker and made good discussion.

Mr. Akshay Mane proposed a vote of thanks.







Dr. Prashant P. Chikode
Asst. Professor, Dept. of Physics,
Jaysingaur College, Jaysingpur
Tal. Shirol, Dist. Kolhapur - 416 101
Wob. 9422488462
Email - prashantchikode@gmail.com

PROJECT INVESTIGATOR

Dr. Sandip R. Sabale

Coordinator

DBT-STAR Coilege Scheme

Jaysingpur College, Jaysingpur

HEAD OF THE INSTITUTION

Dr. Surat A. Manjare PRINCIPAL Jaysingpur College, Jaysingpur



## Jaysingpur College, Jaysingpur Activity Report

Year:	2023-24
Name of the Activity:	Study Tour of B.Sc. III students atKarwar
	Science Centre
Date:	12to 14 Jan 2024
Venue:	Department of Physics
Co-ordinator:	Dr. P.P. Chikode
Organized for:	B.Sc. III Physics students
College/class/staff	
No. of Participants	16
Nature:	Academic
(e.g. Academic, cultural, sports etc)	
Objectives of the Activity	To avail field experience
Industry and Director	Director, Karwar Science Centre, Karwar.
Report	To learn Physics through nature Department of Physics organized a study tour of B.Sc. III students to Karwar Science Center from12 to 14 Jan 2024.  Karwar Science Centre consists of lots of small conceptual experiments in Physics as well as demos and models of solar energy, wind energy, laws of angular momentum, demonstrations on tidal waves and an exhibition of nuclear power plants in India. Science centers often feature interactive exhibits and demonstrations that allow visitors to engage with scientific principles firsthand. In this center, Visitors can learn about the natural world, ecosystems, biodiversity, and environmental conservation through exhibits and displays focusing on biology and ecology also. This information helps raise awareness about the importance of preserving the planet.  These hands-on activities promote experiential learning and help visitors practically understand scientific concepts. Students enjoyed every corner of the center. Many science centers have exhibits related to space exploration, astronomy, and astrophysics. Visitors can learn about the solar system, galaxies, and the latest discoveries in space science. They have also enjoyed the film show on Nuclear energy and understood the workings of nuclear Power plants.  They also enjoyed the seashore and nature of Karwar. This study tour was organized under DBT Star Support scheme.
Outcome	Students understand Physics through field visits.

#### Study tour of B.Sc. III students to Karwar.









Dr. Prashant P. Chikode Asst. Professor, Dept. of Physics, Jaysingpur College, Jaysingpur Tal. Shirol, Dist. Kolhapur - 416 101 Mob. 9422408462 Email - prashantchikode@gmail.com

PROJECT INVESTIGATOR

Dr. Sandip R. Sabale

Coordinator

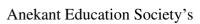
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Jaysingpur College, Jaysingpur

HEAD OF THE INSTITUTION

Dr. Surat A. Manjare PRINCIPAL

Jaysingpur College, Jaysingpur





## Jaysingpur College, Jaysingpur Activity Report

Year:	2022-23
Name of the Activity:	Wallpaper Competition
Date:	28/02/2023
Venue:	Department of physics
Co-ordinator:	Dr. P.P. Chikode
Organized for:	B.Sc. III and B.Sc. II Physics students
College/class/staff	
No. of Participants	45
Nature:	Academic
(e.g. Academic, cultural, sports etc)	To angish brough doe in Dhysics
Objectives of the Activity	To enrich knowledge in Physics
Industry and Director	Head, Dept. of Physics
Outcome	Competitions focused on educational outreach tasks may involve creating educational materials or demonstrations, promoting engagement with physics in the broader community. Competitions can serve as powerful tools to inspire, educate, and assess skills, making them valuable components of physics education and research. The use of such competitions is that participants may develop teaching and communication skills as they design materials that effectively convey physics concepts to diverse audiences. For this competition, a theme of wallpaper was provided to students. Out of that, students in a group of 5 prepared wallpapers by using card sheets in colours. The topics were Chandrayaan, Nuclear energy, Solar energy, Nanotechnology etc. Some students have prepared models of Chandrayaan and Mangalyaan.  Students were enthusiastic and neatly presented each poster. They have explained themes and concepts very well. They have also explained about India's Chandrayan Mission as well as the Mangal mission.  Students also satisfactorily gave the answers to questions asked by the refries' and the audience gathered. This program is supported by the DBT-Star Scheme.
Outcome	Students understand sketching and presentation of subject in an effective manner. Also, they got the stage daring and how to improve the Communication.

#### Wallpaper Inauguration-II



28/02/2023



Dr. Prashant P. Chikode Asst. Professor, Dept. of Physics, Jaysingpur College, Jaysingpur Tal. Shirol, Dist. Kolhapur - 416 101 Mob. 9422408462 Email - prashantchikode@gmail.com

Dr. Sandip R. Sabale

Coordinator

DBT-STAR Coilege Scheme

Jaysingpur College, Jaysingpur

PROJECT INVESTIGATOR

HEAD OF THE INSTITUTION

Dr. Surat A. Manjare
PRINCIPAL
Jaysingpur College, Jaysingpur