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Uppal, Hyderabad

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LEAD TO ILLUMINATE



PHYSICS



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ACADEMIC YEAR 2019 – 2020

Faculty Name	Designation	
Ms. Sreelekha	HOD	
Ms. Srividya	Faculty	

INDEX

S.NO	Date	Name of the Event	Venue	Participants
1	8-07-2019 to 19-07-2019	Certificate course on Astronomy	Department of Astronomy, OU	10
2	18-09-2019 to 19-09-2018	Workshop On Drones	I13 classroom	72
3	04-09-2019	Guest lecture On Spectroscopy	I 23 class room	65
4	28-01-2020	Workshop on Solar PV Module	Computer labs	41
5	26-02-2020	Field Trip to ETDC	ETDC	62
6	16-05-2020	Webinar on Electronic Warfare	Online	160
7	31-05-2020	National Webinar on Physics Virtual Labs	Online	50



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CERTIFICATE COURSE ON ASTRONOMY AND ASTROPHYSICS

Event: Certificate Course

Date: 8-07-2019 to 19-07-2019

Venue: Department of Astronomy, OU

Participants: 10

The Department of Astronomy of OU has conducted certificate courses in Astronomy and Astrophysics from 24-07-2018 to 03-08-2018. This course was attended by 10 students. Each session was taken up by an esteemed guest on various topics beginning from "Why Astronomy Matters" to in-depth issues like Comets, Meteor Showers, Eclipses, Black Holes etc. Students participated enthusiastically in all the sessions and they understood the scope of the subject to be taken as a career option.



Image of the Moon Observed by Students.





Group Photo of Students at Japal Rangapur Observatory



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WORKSHOP ON DRONES

Event: Workshop on Drones Date: 18-09-2019 to 19-09-2018

Venue: I13 classroom

Participants:72

A two-day workshop was organised by the Department of Physics in collaboration with Sansah Innovations PVT. Ltd. Students of 1st BSc MPCS, 1st MPC, 2nd MECs, 3rd MPC and 3rd MPCs participated. The first day of the session was completely focused on the history of Drones, various components of Drone, disassembling and assembling of all the components. Every component has its own significance and a detailed explanation was given by Mr. Sanjay to our students. After learning the technique and significance of each of the components of Drone, students assembled all of them and constructed Drones. The second day of the session was very interesting where all the students were given a chance to operate and fly drones. All the students participated very enthusiastically in the session.



Students actively participating in Drones workshop





Mr Sanjay explaining Drones to Students.



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GUEST LECTURE ON SPECTROSCOPY

Event: Guest Lecture

Date: 04-09-2019

Venue: I 23 class room

Participants: 65

A Seminar was organised for the III Year B.SC (physics) students on 4th September 2019, presented by Dr Kalyani Lakshmi, who is working as a Assistant professor in Secunderabad P.G college. The seminar was conducted on "Spectroscopy ". It basically includes Black body radiation, atomic and molecular spectroscopy, Bohr's model of Hydrogen atom, Sommerfield relativistic atomic model. Dr Kalyani Lakshmi made an Interacting session and students understood the importance of spectroscopy in Physics.



Bro. Vincent Reddy presenting a momento to the guest speaker Dr Kalyani Lakshmi.





 $3^{\rm rd}$ BSC Physics students actively listening to the lecture.



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WORKSHOP ON SOLAR PV MODULE

Event: Workshop Date: 28-01-2020

Venue: Computers lab

Participants: 41

A one-day workshop was organised for II B.SC (Physics) students by the Department of Physics on 29th January, 2020, in coordination with NSIC Technical Training Centre, Hyderabad. The workshop was conducted on 'Design of Solar PV cell using solar pro software'. Mr. Mutthukumaran from NSIC started off with explaining the students about the basics of software used for designing solar cell, solar pro software is a robust PV design and energy simulation solution with integrated 3D-CAD, advanced 3D shading analysis & animations, and accurate solar electricity generation calculations. Mr. Mutthukumaran also explained about the basic considerations in designing solar cells like power rating, array of cells to be set up, shading considerations etc. Students actively participated in the workshop and tried to design solar cells based on the given parameters.



Mr Muthukumaran resource person giving a lecture on solar panels.





Students actively participating in the practical session.



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FIELD TRIP TO ELECTRONIC TEST AND DEVELOPMENT CENTRE

Event: Field trip Date: 26-02-2020 Venue: ETDC

Participants: Students (62)

A field trip was organised by the Department of physics for 1st BSc physics students on 26th February 2020 to Electronics Tests and Development Centre. Students accompanied by a lecturer from the Department. After reaching Mr R V Sudhakar has given a brief introduction on how ETDC functions. Then students were allowed to visit different labs. These laboratories are part of standardisation testing, calibration, quality certification and environmental testing. Students enthusiastically participated and gained knowledge on Functionality on ETDC.



Ms G. Sreelekha along with 1st BSc physics students visited ETDC, ECIL.





Mr RV Sudhakar explain various functionalities of ETDC



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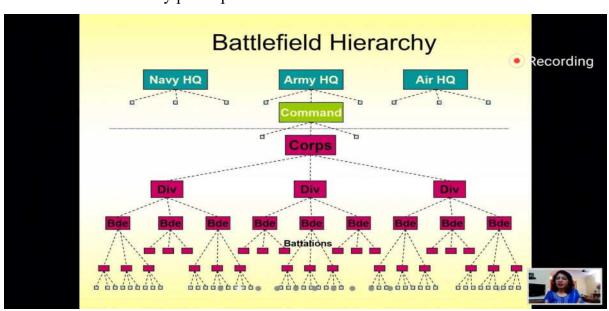
WEBINAR ON ELECTRONIC WARFARE

Event: Webinar Date: 16-05-2020 Venue: Online

Participants: Students (160)

A One-day National Webinar was organised by the Department of Physics on Electronics Warfare on 16th May 2020 by Dr Latha Christie Sr Scientist, Associate Director, MTRDC, DRDO, Bengaluru. Dr Latha Christie started the session with the explanation of the importance and role of Warfare. The emerging military response to the information is focusing on combat power that can be generated by effective networking of various warfighting enterprises dispersed geographically. Speaker also explained about IT Trends affecting info age warfare, Artificial Intelligence, Battle management process, cyber warfare, radars, Bio computer. The major focus is on electronic warfare. She made everyone understand about electronic counter measures through monitoring, collision avoidance system, weather system, and Battlefield information loop.

All the students actively participated in the session and clarified their doubts.



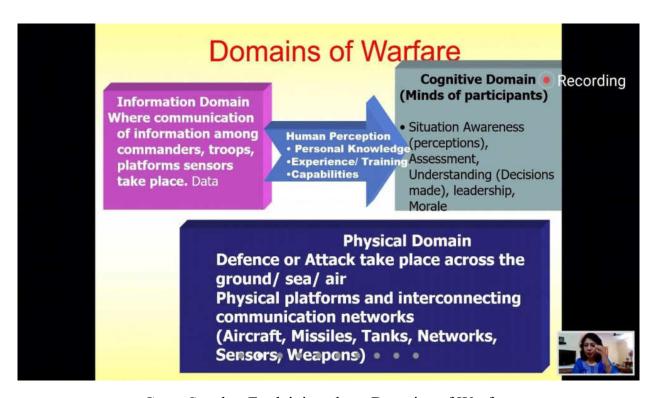
Dr Latha Christie explaining about Battlefield Hierarchy.



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Guest Speaker Explaining about Domains of Warfare



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NATIONAL WEBINAR ON PHYSICS VIRTUAL LABS

Event: National Webinar

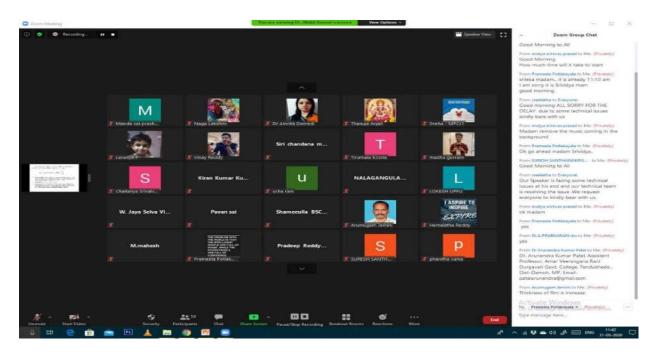
Date: 31-05-2020 Venue: Online

Participants: Students (50)

One Day National Webinar on Virtual Labs-Physics is organised by the Department of Physics on 31st may, 2020 by Dr Abdul Azeem Associate Professor, Department of Physics, NIT Warangal.

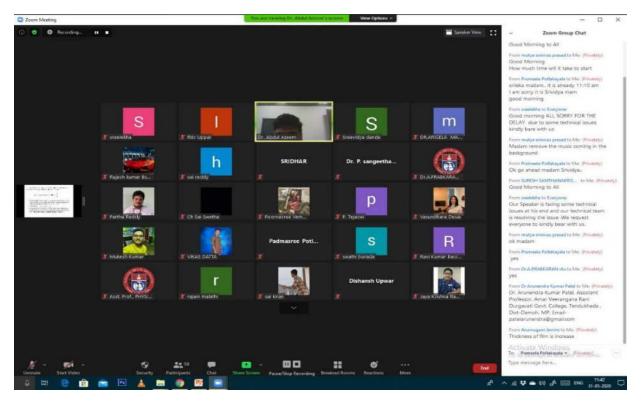
Dr Azeem started his webinar by conveying the significance of virtual labs. He explained experiments in Optics and Electronics. He started with Newton's Rings experiment, later he covered Michelson Interferometer, Diffraction grating, Spectrometer and few more in optics. Later he also explained some experiments in Electronics like the Zener diode, RC coupled amplifier.

Session continued very interestingly as the speaker interacted with participants and clarified their doubts. 70 students, many lecturers, and professors participated in the webinar.



Attendance of the participants during the virtual lab Webinar.





Sir explaining the significance of virtual labs



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FDP ON HOW TO TAKE ONLINE CLASSES

Event: National Webinar

Date: 30-04-2020 to 02-05-2020

Venue: Online

Participants: Faculty (01)

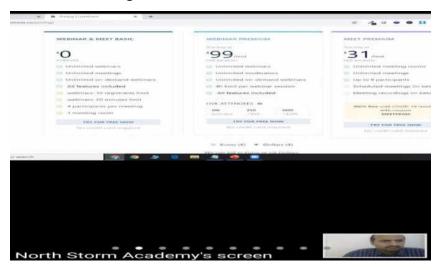
Faculty development programme was organised by Mumbai University, Lala Lajpat Rai college of Commerce and Economics and North Storm Academy on 30th April 2020 to 2nd May 2020. Resource person for the session was Hitesh Motwani, CEO of Skillpedia and Visiting faculty at IIM Bengaluru.

On Day 1, resource persons focused on how to teach and engage students online. Session focused much on topics like making students comfortable, training teachers on how to work online, students onboarding, live classes scheduling, materials and assessments sharing.

On Day 2, we understood what the challenges of a teacher encounters in online sessions. They also explained very clearly about different platforms where we can take online classes like Zoom, Live storm, Google Meet, Web Ex, Go to Meeting.

On Day 3, we learned about different assessment methods that can be implemented through online classes. Resource person explained different software's like Socrative, Kahoot etc.,

It's a wonderful experience to attend such a session. All the inputs were really helpful for all the teachers while conducting online classes.



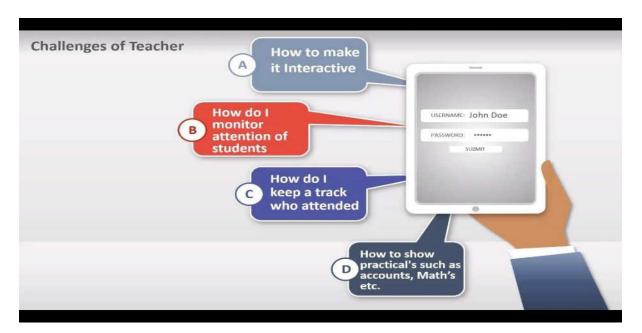
Speaker explaining about different tools that can used while taking online classes



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Speaker talking about challenges of teachers and managing skills.



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INTRA COLLEGIATE COMPETITION

Event: Poster presentation on sensors

Date: 06-01-2020

Venue: LFDC (Physics lab)

Participants: 13

Report:

The department of Physics conducted Intra Collegiate competition on "Poster Presentation on Sensors" on 06 Jan 2020 .13 students participated from different classes



A Ramakrishna and Shantha presenting a poster to the judge



V Chandana and Soumya explaining