



1st BATCH STUDENT INTERNSHIP & PLACEMENTS

Mr. Jean De Dieu Nibigira, Burundi, Africa.,
ID No. 172220001 (2017-2019)

Summer Internship : Civil Aviation Authority of Burundi (June & July 2019)

Placement : Master of Science (Thesis), University of Alberta, Canada.

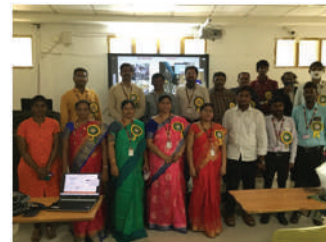
2nd Batch students in their research work



Ch. Pravallika, ID No.194220002



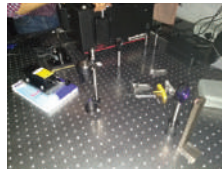
T. Rajesh Kumar, ID No. 194220001



Research Lab Equipments



Microtops II Sunphotometer



UV Vis-NIR Spectrofluorometer



Absorption Spectrometer



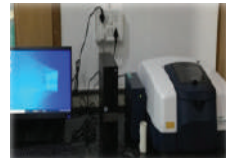
Electro chemical work station



Conductivity set up



Spectrofluorometer



FT-IR Spectrometer



Pellet machine

CAMPUS :

KL Deemed to be University, Green Fields,
Vaddeswaram, Guntur District,
Andhra Pradesh, Pincode : 522 502.
Ph: 08645-350200 | www.kluniversity.in

ADMINISTRATIVE OFFICE :

KL Deemed to be University,
29-36-38, Museum Road, Governorpet,
Vijayawada. A.P., India. Pincode: 520 002.
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| Manager Admissions: 7997996048

| HOD: 9396762244



**KONERU LAKSHMAIAH
EDUCATION FOUNDATION**

(Deemed to be University estd., u/s 3 of UGC Act 1956)

ADMISSIONS OPEN

PHYSICS

www.kluniversity.in/physics/

DEPARTMENT OVER VIEW

The Department of Physics was established in the year 1980. The department offers M.Sc. Physics, M.Phil., and Ph.D programs. The department is functioning with 12 Doctoral Faculty Members. Research work in the department is being carried out in various fields like Material Science, Nanotechnology, Space & Atmospheric Science, Theoretical and Computational Physics and Ultrasonics. The department had 3 fully equipped research labs of worth Rs. 3.crore. The department is recognized as DST-FIST Level 1 department with grant of Rs.107 lakhs by the Department of Science and Technology, Govt. of India, New Delhi. The department also has good number of sponsored research projects of worth Rs. 3 crore under DST woman scientist scheme, young scientist scheme, Early career research award and SERB-Start up research grant. Faculty members of our department have published more than 250 research publications in highly reputed international journals with high impact factor.

M.SC PHYSICS SPECIALISATIONS:

1. Solid State Physics
2. Electronics
- M.Phil: Physics
- Ph.D: Physics

Master of Science in Physics (M.Sc. Physics) provides student a chance to enhance their mathematical problem solving and critical thinking skills. This helps the students to understand scientific data. They gather skills like numerical problem-solving, data analysis, and the communication of complex ideas. Better understanding of how the world works on a scientific level.

DEPARTMENT HIGHLIGHTS:

- ✓ DST FIST Level 1 Department
- ✓ Sophisticated labs, Library and other state of art infrastructure to pursue the program
- ✓ Established Research Laboratories with Rs. 3 crore worth equipment
- ✓ Six faculty members received sponsored projects under SERB-ECRA, DST, Young Scientist schemes, UGC-DAE and SERB-SRG.
- ✓ Three faculty received and completed Women scientist projects funded by DST
- ✓ Faculty members were honored as Associate fellow from AP Academy of Sciences-2020, Excellence in research-2020, Best woman faculty-2020, Best senior faculty-2020, Best Scientist of the Year Award 2019 from different organizations
- ✓ Number of Ph.D's awarded - 14.
- ✓ One of the faculty published patent entitled “Entropy-Based Image Retrieval Method for Faster Retrieving of Images” with filing number: 202041028523 Patent Publication Number- 202041028523
- ✓ 250 Research publications in national and international reputed journals with high impact factor
- ✓ Conducted International and National conferences/seminars/workshops/webinars
- ✓ Admissions are open for both National and International students

ELIGIBILITY

- ✓ B.Sc (Maths, Physics, Electronics)
- ✓ B.Sc (Maths, Physics, Statistics)
- ✓ B.Sc (Maths, Physics, Computers)
- ✓ B.Sc (Maths, Physics, Chemistry)
- ✓ B.Sc (Maths, Physics, Geology)

RESEARCH LABS:

- ✓ Emerging materials research Lab(EMRL)
- ✓ Advanced materials research lab (AMRL)
- ✓ Advanced functional materials research centre(AFMRC)

RESEARCH GROUPS

- ✓ Centre for Emerging Materials
- ✓ Centre for Nanotechnology

AREAS OF RESEARCH

- ✓ Glass Sciences
- ✓ Nanoscience
- ✓ Materials for Battery applications
- ✓ Space & Atmospheric science
- ✓ Ultrasonics and Chemical Thermodynamics

THRUST RESEARCH AREAS

- ✓ Synthesis of Rare earth ions doped glasses, Glass ceramics and phosphors for lasers, optical fibers, photonic devices and solar spectral Applications
- ✓ Materials for energy storage devices
- ✓ Modeling of Atmospheric pollution and Ionosphere irregularities
- ✓ Material science based on solar energy direct and indirect applications, Nano-crystal growth techniques, Bioactive molecules, Energy absorptions, Waterjet surface, drug discovery(COVID) Environmental and population health.
- ✓ Ultrasonics and chemical thermodynamcs

SPONSORED RESEARCH PROJECTS

- ✓ Establishment of Emerging materials research lab
- ✓ Development of Ion Conducting Polymer Electrolyte using Thin film Nano Crystal line Composites for the Application towards Batteries
- ✓ Measurement and characterization of radiative effects and vertical distribution of ambient aerosols in Andhra Pradesh based on comprehensive observations and model simulations (SERB-SRG)
- ✓ Spectral Characterization of RE-ion doped telluride glasses for opto electronic device applications
- ✓ Preparation and Characterization of Rare Earth ions doped Oxide, Fluoride and Oxy-fluoride Glasses/Glassy Ceramics for Fiber Lasers and Optical Fiber Amplifiers
- ✓ Synthesis and Charecterization and evaluation of non structured spinel thin film LiMn2O4 cathode active materials with hetero valent multi ion insertion: Applications for rechargeable batteries
- ✓ Preparation and Characterization of Rare Earth ions doped Oxide, Fluoride and Oxy-fluoride Glasses/Glassy Ceramics for Fiber Lasers and Optical Fiber Amplifiers
- ✓ Electron energy level estimation of diluted nano heterostructures

STUDENT OPPORTUNITIES

After M.Sc physics students can opt and choose different sectors like

- ✓ **Energy sector:**
The area focuses renewable or non-renewable energy sector. The renewable energy includes extracting fossil fuel and oil reserves, etc. these include wind, solar energy, etc.
- ✓ **Technology:**
With the increase in demand for robotics, nanotechnology, and nano-science, there is a huge scope of work in this sector. Huge scope for research and developing new ideas and products with other scientists/ researchers.
- ✓ **Geophysics and meteorology:**
This sector concentrates on the prediction of natural disasters, meteorology area focus will be daily weather forecasting, long-term effects of climate change, etc.
- ✓ **CollegeLecturer/Professor:**
This sector focuses to become a teacher in government or private colleges and universities. Jobs in polytechnic institutes, degree colleges, engineering colleges, etc. After M.Sc Physics chance to appear for NET (National Eligibility Test) or SET (State Eligibility Test) to become a lecturer/professor at Colleges and Universities.
- ✓ **Banking/Telecommunication:**
There is opportunity to opt for public sector banking, as well. Banks do recruit M.Sc. Physics graduates for the post of Probationary Officers. Some of the banking jobs require postgraduation to recruit. In the field of telecommunications as Junior telecom officer (JTO).

SCOPE OF EMPLOYMENT

The sectors where M.Sc physics students can find employment includes

- ✓ Research Analyst
- ✓ College Lecturer/ Professor
- ✓ Physics Research Labs
- ✓ Radiation Protection Centers
- ✓ Oil and Gas Companies
- ✓ Energy Companies
- ✓ Banking
- ✓ Defense Research and Development Organization
- ✓ Indian Space Research Organization
- ✓ Space Application Centre
- ✓ Atomic Research Centre
- ✓ Variable Energy Cyclotron Centre
- ✓ National Thermal Power Corporation
- ✓ Tata Institute for Fundamental Research

- ✓ Baba Atomic Research Centre
- ✓ Oil and Natural Gas Corporation
- ✓ Bharat Heavy Electricals Limited
- ✓ National Atmospheric Research Laboratory
- ✓ Physical Research Laboratory
- ✓ Institute of Nuclear Physics
- ✓ Nuclear Science Centre
- ✓ National Geographical Research Institute
- ✓ Regional Research Laboratories
- ✓ National Institute of Science Communication and Information Sources

STUDENT ACTIVITIES

- ✓ Research papers published in SCI journals
- ✓ Results presented in conferences/seminar/workshop
- ✓ Participated in extension activities
- ✓ Training will be given in national research labs and for qualifying GATE/CSIR/NET