

1st National Workshop
on
Science and Technology of
Low Dimensional Systems
(STLDS-2019)
July 25-27, 2019



Organized
by

Department of Physics
Siksha 'O' Anusandhan
(Deemed to be University)
Bhubaneswar- 751030, Odisha, India

About the Workshop

In the last two decades, low dimensional materials have attracted huge attention from the scientific community. With the progress in crystal growth technology to atomic scale precision, we have a rich variety of attractive advanced materials in low dimensions (quantum well, superlattice, quantum wire, quantum dot,). There have been many interesting developments and discoveries in the field of low dimensional quantum structures, in an effort to achieve solid state devices operating at ever higher speeds, consuming lower power, and exhibiting novel optical, electrical and magnetic capabilities. There is a surge in the application of low dimensional materials in optical devices and quantum lasers owing to dimension based density of states, photo detectors, dye sensitized solar cells, quantum dot sensitized solar cells, H₂ production, antibacterial/ antifungal applications, UV protecting materials, paint technology and so on. Recently research attention has been channelized towards magnetic tunnel junctions and spintronics dealing with tunneling magneto resistance used in Magnetic read heads in high density HDD and Magnetoresistive random access memory (MRAM), magnetic memory, storage cells etc. Due to these huge opportunity of technological applications, low dimensional materials have become the subject of intense research. Accordingly, it is quite important to have a broad knowledge of this multi-potential field of science for students, scientists and engineers working in the related areas.

Scope of the Workshop

The objective of this workshop is to bring together experts from academic institutions, industries and research organizations from across the country to share knowledge, expertise and experience in the emerging fields of research on the theme of the workshop.

It will also provide the researchers the opportunity to present their latest findings in a workshop environment, hopefully stimulating meaningful debate, enabling in-depth technical discussions, and allowing significant exchange of knowledge.

The workshop is aimed to provide a forum for UG/PG College teachers, young research scholars, and PG students to participate in the proceedings for encouraging them to take up active interest in research and development,

The workshop aims to cover both theoretical and experimental studies dealing with the basic concepts of low dimensional systems; growth and fabrication, of two,

one and zero dimension materials; electron transport mechanisms, optoelectronic and magnetic properties and applications of these materials

Presentation

- The workshop will include
- Invited Talks
 - Poster Presentation

About the University

Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar declared u/s 3 of UGC Act, 1956 is a leading University in India offering professional programmes in the disciplines of Master of Sciences, Engineering, Medicine, Dental Science, Nursing, Pharmaceutical Science, Biotechnology, Management, Law, Hotel Management and Agricultural Sciences. The university offers a vibrant atmosphere for teaching – learning, research & development and socially inclusive extension activities through all its undergraduate and post graduate programmes. Today Siksha 'O' Anusandhan (Deemed to be University) has emerged as one of the fastest growing university in the country.

True to its mandate to pursue contemporary and interdisciplinary research this comprehensive and multi disciplinary university is actively spearheading research in emerging area of Technology, Medicine, Science and Management. With current strength of 583 research scholars, 15 post docs and a large pool of post graduate students along with a focused groups of faculty members, the research programmes across different disciplines and 13 research centres in the University have produced visible dividend in the form of 4767 publications with 3697 SCOPUS indexed (h-index-44) and other reputed indices, some of which are in high impact factor bracket (3-9). Recent initiatives in the field of Intellectual Property Right (IPR) have thus far yielded filing of 60 patents. The strong R & D base, increasing number of research scholars and vigorous research activities being undertaken and planned are all set to reach a milestone, transforming this university in near future into one of the fore-front research centres in the country.

Based on its all round performance, this University has been awarded ranks among top 20 in the country in University category by National Institutional Ranking Framework (NIRF) of Ministry of Human Resources & development (MHRD), Govt of INDIA consistently for last three years, surpassing many State & Central University/ IIT's / Institute of high learning. In 2017-18 it has been declared 24th Best in University Category, 38th Best in Overall Institute and 19th Best Medical College in the country. This is the only University in Odisha to have achieved such accolade. Approved by UGC & AICTE, it

has been re-accredited by the NAAC with A-Grade and has obtained the International Accreditation by ABET, USA and certification by IAO, URS, UK.

Travel Information

The university is situated at Bhubaneswar, the capital city of Odisha. It is well connected by air, rail and bus. It is hardly 5 km away from the airport, 8 km from the railway station and 3 km from the bus stand. With the monsoon remaining active, the average temperature in July remains in between 30-35 °C.

Important Dates:

Last date of Abstract Submission	10.06.2019
Intimation of Acceptance	20.06.2019
Last date of Submission of full papers	10.07.2019
Last date of Registration	25.07.2019

Registration Fee

Registration Fee is to be paid in cash only on spot.

Student and Research Scholars: **Rs. 1500/-**

Faculty and Post Doctoral Fellow: **Rs. 2000/-**

Abstract Submission

The details regarding the preparation of one page abstract can be found at the end of this announcement. Authors are requested to submit their abstract(s) through email attachment (MS word) to: **stlds2019@soa.ac.in**. Acceptance of the abstracts will be notified through e-mail. There will be a poster session. Scanned copy of duly filled in Registration form should be sent only after acceptance of the abstract. ***Papers presented in the workshop will be published in a Scopus-indexed international journal.***

Accommodation

Accommodation will be provided on request and on payment basis at University guest house located in the campus or nearby hotels. Request for accommodation should be made in advance by submitting a duly filled in registration form in the attached format.

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Prof. Manojranjan Nayak, President, Siksha 'O' Anusandhan (Deemed to be University)

Patron

Dr. Amit Banerjee, Vice Chancellor, Siksha 'O' Anusandhan (Deemed to be University)

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Convener

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REGISTRATION FORM *

A National Workshop on Science and Technology of Low Dimensional Systems (STLDS-2019)

July 25-27, 2019

Department of Physics
 Siksha 'O' Anusandhan (Deemed to be University),
 Bhubaneswar 751030, Odisha

Name (Block Letters):

Gender (M/F):..... Designation:.....

Affiliation/Organization:.....

Address:.....

.....

Mobile:.....

E-mail:..... Title

of Paper:.....

.....

.....

Mode of presentation: Invited/Poster

Accommodation Required (Yes/No):.....

Date and Time of Arrival:..... Date

and Time of Departure:.....

Food Preference: Veg/Non-Veg

Date:

Signature

*** Photocopies of this form may also be used.
 Registration form duly filled in should reach by
 20th July 2019.**

Instruction to Authors

1 page abstract that include all Figures, Tables, References etc. The paper size should be A4 (210 mm x 297 mm) with 25 mm margin on all sides. The Font should be Times New Roman with size as indicated in different parts. Except specifically stated, the text should be justified (not right, left, or centered).

Title of the paper (bold, Size 14)

Full names of authors (e.g. Manoj Patil, Madhu Singh, ...) (Size 12)

Affiliation (italicized, Size 10).

E.mail : dfg@ klmn.uy.in (Size 10).

(all of the above must be Centered)

Abstract (bold, size 12, Centered)

1 Space The abstract text should be in font size 10. The line spacing should be 1.5 space in single paragraph. The text should be justified. Figures and tables should be suitably reduced in size for their appropriate placement in the text, where they are referred to. Each must be numbered (bold, e.g. Fig.1) and must have an appropriate caption below it. Caption should be italicized. References, if any, should be inserted in the text in brackets as (e.g., [1]), numbered according to their sequence of appearance in the text. 2 Spaces

REFERENCES (Capital, bold, Size 10, Align left):

The style of reference should be:

[1]. X. You, Y. Zou and K. Xu, J. Magn. Mater 25 (2019) 222