

Two-day International Conference

On

South Asian Literatures and Cultures

Organized by

Department of English (UG & PG)

Bidhan Chandra College
Asansol-4

In Collaboration with

Banwarilal Bhalotia College
Asansol-3

Sponsored by :

Asansol Municipal Corporation, Asansol

ATTESTED

Principal
Chandra Chatterjee
Asansol

4th – 5th January 2020



Dear Madam/ Sir,

This is a great pleasure to inform you that the Department of English of Bidhan Chandra College, Asansol, India, is organizing a two-day International Conference on "South Asian Literatures and Cultures" on 4th and 5th January, 2020, in collaboration with the Banwarilal Bhattacharya College, Asansol. Your active participation is earnestly solicited for the success of the conference.

FOCAL AREAS OF THE CONFERENCE:

- a. Literature of Architecture and Architecture of Literature:
South Asian Context
- b. Cultural heritage and (post)modernity in South Asia
- c. The Subaltern speaks: Folk cultures/ literatures and regional cultures/literatures of South Asia
- d. Translation and Multiculturalism in South Asia
- e. Colonial legacy and neo-colonial trends in South Asia
- f. South Asia and Literary and Cultural Postcolonialism
- g. Experiences of Diaspora in South Asian literatures and cultures
- h. The questions of Democracy and socio-economic marginalization in South Asia
- i. Body and Gender: Genealogy and Deconstruction
- j. The Question of Popular Culture: Negative Dialectics?

INVITED SPEAKERS/ RESOURCE PERSONS:

Professor (Dr) Sajal Kumar Bhattacharya
Professor & Head, Dept. of English, Kazi Nazrul University

Professor Edward Hollis
Professor & Deputy Dean of Research, College of Arts, Humanities, Social Sciences, University of Edinburgh, Scotland

Professor (Dr) Nandini Saha
Professor & Head, Dept. of English, Jadavpur University

Professor (Dr) Anindya Sekhar Purakayastha
Professor, Dept. of English, Kazi Nazrul University

Professor Goutam Ghosal
Professor, Dept. of English and Other Foreign Languages Visva Bharati, Santiniketan

Dr Shri Krishan Rai
Associate Professor, Dept. of Humanities & Social Sciences, NIT, Durgapur

Dr Pritam Mukherjee
Associate Prof. of English, Abhedananda Mahavidyalaya

Dr Sharbani Banerjee Mukherjee
Associate Prof. of English, T.D.B. College

Ms Sudipta Chakraborty
Asst. Prof. of English, DOBL, University of Kalyani

Objectives:

This conference aspires to address both the exchanges among different communities of people living in South Asian countries and the factors of contingency affecting the life style of a particular locality. This is a way of re-examining the canonized versions of concepts like 'original', 'foreign', 'traditional' and 'provincial' from the perspective of a rapidly changing world with a growing consciousness that 'culture' – including 'literature' – does always exist on the borderlines between multiple human perceptions, involving class, creed, gender, language, body, region, and historical and political experiences and expectations. Different groups of people of South Asia share among themselves a long history of European colonial rule shaping the lives of people in considerable ways and being followed by varied processes of decolonization depending upon socio-political constitutions of different places. The present conference, for obvious reasons, especially focuses on the colonial and the postcolonial developments in this part of the globe.

BIDHAN CHANDRA COLLEGE, ASANSOL:

Bidhan Chandra College, Asansol, located in the industrial zone of Asansol - Burdwan city in Paschim Bardhaman District, owes its origin to the sincere efforts of members of Asansol Education Development Committee and Relief & Welfare Society. The renowned education patriot, Sri Sasthikaravan Gorai made a large contribution towards the foundation of college. The Govt. of West Bengal brought up the college under the sponsored scheme from its very inception in 1961. It has the rare significance of being named after Dr B. C. Roy, one of the pioneers of modern India when he was living. The foundation stone of the new building of the college was laid by Dr Saropalli Radhakrishnan. Currently, the college has been accredited as 'B' grade by NAAC and is affiliated to the Kazi Nazrul University, Asansol. The college is three kms away from Asansol railway station and 1.5 kms from main bus stop, and is well connected by the local transport.

Patron-in-chief:

Professor Sadhan Chakraborty

Honourable Vice-Chancellor, Kazi Nazrul University
Chief Advisor

Mr Tapas Banerjee

President, G.B., Bidhan Chandra College & Chairman, ADDA
President:

Dr Falguni Mukhopadhyay

Principal, Bidhan Chandra College, Asansol
Chairman:

Dr Amitava Basu

Principal, Banwarilal Bhattacharya College, Asansol
Convener:

Dr Subhadeep Ray

Head and Associate Professor, Dept. of English,
Bidhan Chandra College, Asansol

Treasurer:

Dr Sujit Kumar Bera

Bursar and Associate Professor of Chemistry,
Bidhan Chandra College, Asansol

ADVISORY BOARD:

Prof. (Dr) Aparna Chakraborty, Joint D.P.I.
Department of Higher Education, Govt. of West Bengal

Professor (Dr) Sajal Kumar Bhattacharya
Professor & Head, Dept. of English, Kazi Nazrul University

Professor Edward Hollis

Professor & Deputy Dean of Research, College of Arts,
Humanities, Social Sciences,
University of Edinburgh, Scotland

Professor (Dr) Nandini Saha

Professor & Head, Dept. of English, Jadavpur University

Professor (Dr) Anindya Sekhar Purakayastha
Professor, Dept. of English, Kazi Nazrul University

Mr Sreenath Sarkar

IQAC Co-ordinator, Bidhan Chandra College
Principal 
Dr Saumen Chakraborty
Dr Pradip Kumar Maji

IQAC Co-ordinator, Bidhan Chandra College
Principal 
Dr Arup Ratan Basak, Dr Sanjukta Banerjee,
Ms Jayati Ganguly & Mr Sujoy Kumar Acharyya,
Faculty, Dept. of English, B.C. College

Dr Swapan Kumar Dey Head & Asst. Prof.,
Dept. of Bengali, B.C. College

Mr Amitabha Mukhopadhyay, Asst Prof.,
Dept. of Bengali, B.C. College

Dr Vijay Narain, Head & Asst. Prof., Dept. of Hindi, B.C. College

REGISTRATION FORM

Please type or Fill up in BLOCK LETTERS

NAME :

INSTITUTION :

DESIGNATION :

FULL MAILING ADDRESS :

Poster/ Oral Presentation :

E-mail :

Phone :

Transaction ID for online submission of
Registration fee with date :

Or
Demand Draft Number :

Details for submission of Registration fees

BANK NAME : State Bank of India

Account Name:

Bidhan Chandra College, Asansol

Account Number : 11214097180

IFSC Code : SBIN0000011

REGISTRATION FEES

Academia	:	Rs. 1200/-
Research Students	:	Rs. 700/-
Industry	:	Rs. 2000/-
Students	:	Rs. 100/-

The registration fees may be submitted online or by Demand Draft, drawn in favour of Bidhan Chandra College, Asansol, and payable at Asansol. Spot registration for participation will also be available to all those interested.

CALL FOR ABSTRACT/PAPER

Abstract: The participants are requested to submit the abstract(s) (maximum 250 words). Soft copy of the abstracts for poster and oral presentations should be e-mailed in MS WORD format (Font: Times New Roman, Size: 12, spacing 1.5) and also in PDF format as attachments. For poster presentation, the name of the presenting author of the poster should be underlined. Poster size should be within 3 feetx 3 feet in dimension.

E-mail for sending abstracts :

behem09@gmail.com

Last day of submission of abstract :

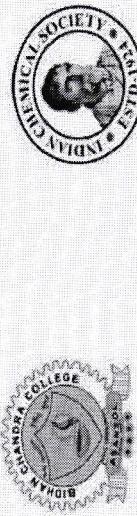
17.01.2020

Please Contact for Queries :

9734097075, 9434389433,
9433450441, 9476241094

Asansol Durgapur Development Authority (ADDA)
(A statutory Authority of the Govt. of West Bengal)

Sponsored



INTERNATIONAL SEMINAR

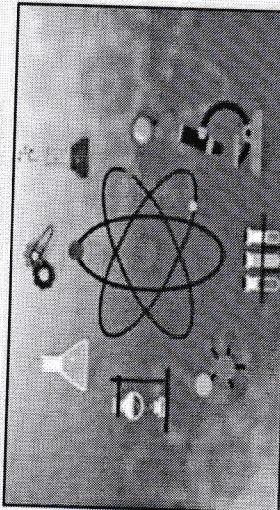
ON

ADVANCEMENTS

IN

CHEMICAL SCIENCES ISSUES AND CHALLENGES

4th – 5th February 2020



Department of Chemistry

Bidhan Chandra College ATTESTED
Asansol
West Bengal, India
In Collaboration
With

Indian Chemical Society

Principal College
Bidhan Chandra
College

Sir/Madam

We are pleased to inform you that the Department of Chemistry, Bidhan Chandra College, Asansol—4 is going to organize a 2-days International Seminar on "Advancements in Chemical Sciences: Issues and Challenges" on 4th and 5th February, 2020 in collaboration with the Indian Chemical Society. We cordially invite you to participate in this seminar and grace this occasion by your benign presence.

Sub Theme of the seminar

- ▲ Green Chemistry
- ▲ Catalysis
- ▲ Bio-organic Chemistry
- ▲ Bio-inorganic Chemistry
- ▲ Material Sciences
- ▲ Synthetic Organic Chemistry
- ▲ Supra-molecular Chemistry
- ▲ Spectroscopy
- ▲ Quantum Chemistry
- ▲ Computational Chemistry
- ▲ Coordination Chemistry
- ▲ Nano Chemistry
- ▲ Medicinal Chemistry

INVITED SPEAKERS

1. Prof. Chittaranjan Sinha
Secretary, Indian Chemical Society & Head Department of Chemistry, Jadavpur University
2. Prof. Bimalendu Ray
Department of Chemistry, University of Burdwan
3. Prof. Samaresh Bhattacharya
Department of Chemistry, Jadavpur University
4. Dr. Aparna Banerjee
Department of Chemistry, Bidhan Chandra College
5. Prof. Prasanta Ghosh
University Vice-rector for Investigation & Postgraduation, Bidhan Chandra College
6. Dr. Apurba Lal Koner
Department of Chemistry, IISER Bhopal
7. Prof. Rajnarayan Saha
Department of Chemistry, NIT, Durgapur
8. Mr. Anindya Roy
Manager, IISCO Steel Plant, Burnpur

OBJECTIVES

Traditionally trending for centuries CHEMISTRY has ceased to be a mere subject now. It has metamorphosed itself to cater the needs of mankind and in the last few decades it has indeed grown into a completely new world. With its tributaries and distributaries its growth is enormous. Here in this seminar our primary objective is to uphold the advancements in this vivid subject and the challenges thus faced. This we sincerely hope would rouse interest in the subject, amongst every audience, specially the students, the budding chemists of tomorrow.

OUR COLLEGE

Bidhan Chandra College, Asansol, located in the industrial zone of Asansol-Burdwan city in Paschim Bardhaman District, owes its origin to the sincere efforts of members of Asansol Educational Development Committee and Relief & Welfare Society. The renowned education patriot, Sri Sashinaranjan Gorai made a large contribution towards the foundation of college. The Govt. of West Bengal brought up the college under the sponsored scheme from its very inception, in 1961, in the name of Dr. B. C. Roy, the illustrious son of our state. The foundation stone of the new building of the college was laid by Dr. Sarupalli Radhakrishnan. Currently, the college has been accredited as 'B grade' by NAAC and is affiliate to the Kazi Nazruddin University.

TRAVEL & ACCOMODATION

Our college is only 3 km from Asansol Railway Station and 2 km from Asansol Bus Stand. Auto rickshaws, electric rickshaws are available from the station as well as the bus stand. Regarding accommodation participants are requested to arrange their own.

Patron-in-chief

Prof. Sadhan Chakraborti

Hon'ble Vice-Chancellor, Kazi Nazruddin University
Sri Tapas Banerjee

Chief Advisor

President, G.B. Bidhan Chandra College & Chairman, ADDA
Chairman

Dr. Falguni Mukhopadhyay
Principal, Bidhan Chandra College, Asansol

President

Prof. Chittaranjan Sinha
Secretary, Indian Chemical Society &
Head, Deptt. of Chemistry, Jadavpur University

Convenor

Dr. Pradip Kumar Maji
Dept. of Chemistry, Bidhan Chandra College, Asansol

Treasurer

Dr. Sujoy Kumar Beura
Department of Chemistry, Bidhan Chandra College, Asansol

ADVISORY BOARD

Prof. Samaresh Bhattacharya
S.S. Bhattacharya Awards, Deptt. of Chemistry, Jadavpur University

Prof. Bimalendu Ray
Dept. of Chemistry, University of Burdwan

Dr. Aparna Banerjee
Department of Vice-rector for Investigation & Postgraduation,
Universidad Católica del Maule, Talca, Chile

Prof. Prasanta Ghosh
Dept. of Chemistry, IISER Bhopal, MP

Dr. Apurba Lal Koner
Deptt. of Chemistry, IISER Bhopal

Mr. Anindya Roy
Manager, IISCO Steel Plant, SAIL,

Mr. Sreemanta Sarkar
IOAC Co-ordinator, Bidhan Chandra College

Dr. Chittaranjan Das
Head, Deptt. of Chemistry, Bidhan Chandra College

Dr. Sutapa Adhikari Mazumder
Dr. Samim Akhtar

Dr. Tapan Kumar Si
Dr. Kanika Ghosh

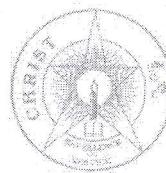
Dr. Saumen Chakraborty
Dept. of Physics, Bidhan Chandra College

Dr. Gautam Mukherjee
Head, Deptt. of Physics, Bidhan Chandra College

Mr. Indubaran Manda
Head, Deptt. of Mathematics, Bidhan Chandra College

ATTESTED

Principal College
Bidhan Chandra College
Bidhan Chandra College
Bidhan Chandra College



Certificate of Collaboration

I am pleased to write this certificate of ongoing research collaboration, details of which are as follows:

- **Collaboration Between:**
- **CHRIST University Laboratory,**
Principal Investigator: Prof. Debabrata Samanta,
Department of Computer Science, School of Sciences,
Christ (Deemed to be University), Bengaluru, Karnataka 560029
and
 - **Microsystem Design-integration Lab,**
Principal Investigator: Dr. Amit Banerjee,
Physics Department, Bidhan Chandra College,
Asansol, West Bengal 713303
- **Duration of Collaboration:** 2020-2022 and continuing.
- **Details of Collaboration:** Research collaboration related to Terahertz biomedical devices and advanced computing systems.
- **Output of Collaboration:**
- **Research Publication:**
 - **Journal Publication:** Cipher Block Chaining Support Vector Machine for Secured Decentralized Cloud Enabled Intelligent IoT Architecture, 2021, Journal: IEEE Access, 10.1109/ACCESS.2021.3095297
<https://ieeexplore.ieee.org/abstract/document/9475963>
 - **Journal Publication:** IoT based Response time analysis of messages for smart autonomous collision avoidance system using Controller Area Network, 2022 (Accepted, manuscript ID 1149842), Journal: Wireless Communications and Mobile Computing, Publisher:Hindawi
 - **Chapter Publication:** Trends in Terahertz Biomedical Applications, 2021, Book: Generation, Detection and Processing of Terahertz Signals, Pages: 285-299, Publisher: Springer Nature
https://link.springer.com/chapter/10.1007/978-981-16-4947-9_19
 - **Chapter Publication:** Design and Development of Terahertz Medical Screening Devices, 2021, Book: Trends in Wireless Communication and Information Security, Pages: 395-404, Publisher: Springer Nature
https://link.springer.com/chapter/10.1007/978-981-33-6393-9_40
 - **Chapter Publication:** Trends in Terahertz Biomedical Applications, 2021, Book: Generation, Detection and Processing of Terahertz Signals, Pages 285-299, Publisher Springer Nature
https://link.springer.com/chapter/10.1007/978-981-16-4947-9_19
 - **Book Publication:** Computationally Intensive Statistics for Intelligent IoT, Authors: Debabrata Samanta, Amit Banerjee, Publication date: 2021, Publisher: Springer Nature
<https://www.springer.com/in/book/9789811>

Samanta 15/03/2022

Dr Debabrata Samanta
Assistant Professor
Department of Computer Science
CHRIST (Deemed to be University)
Bangalore, India

ATTESTED

[Signature]
Principal
Bidhan Chandra College
Asansol

काशी हिन्दू
विश्वविद्यालय



BANARAS HINDU
UNIVERSITY

विज्ञान संस्थान
गणित विभाग

INSTITUTE OF SCIENCE

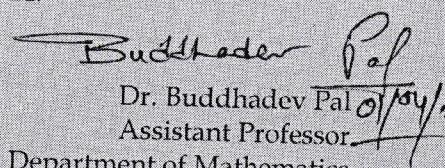
DEPARTMENT OF MATHEMATICS

An Institution of National Importance Established by an act of Parliament

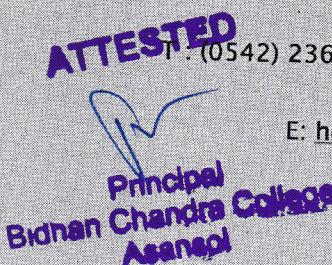
Certificate of Collaboration

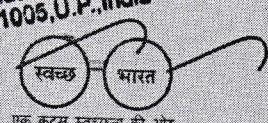
I am pleased to write this certificate of ongoing research collaboration, details of which are as follows:

- **Collaboration Between:**
 - ❖ **Banaras Hindu University**
Name of the author: Dr. Buddhadev Pal
Department of Mathematics, Institute of Science, Banaras Hindu University,
Varanasi, Uttar Pradesh - 221005, India
and
 - ❖ **Bidhan Chandra College, Asansol**
Name of the author: Dr. Santu Dey
Department of Mathematics, Bidhan Chandra College, Asansol - 4,
West Bengal - 713304 , India.
- **Duration of Collaboration:** 2019-2020 and continuing.
- **Details of Collaboration:** Conformal mappings of some Einstein manifolds and warped product manifold.
- **Output of Collaboration:**
- **Research Publications:**
 - **Journal Publication:** Santu Dey, Buddhadev Pal and Arindam Bhattacharyya, CONFORMAL MAPPINGS OF GENERALIZED QUASI-EINSTEIN MANIFOLDS ADMITTING SPECIAL VECTOR FIELDS, Gulf Journal of Mathematics (UGC listed), Vol 9, Issue 1 (2020) 27-41.
 - **Journal Publication:** Buddhadev Pal, Santu Dey and Sampa Pahan, On a non-flat Riemannian warped product manifold with respect to quarter-symmetric connection, Acta Univ. Sapientiae Mathematica, (UGC listed), 11, 2 (2019) 332-349, DOI: 10.2478/ausm-2019-0024.


Dr. Buddhadev Pal 07/04/22
Assistant Professor
Department of Mathematics
Institute of Science
Banaras Hindu University
Varanasi – 221005, India

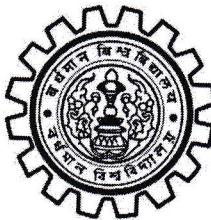
VARANASI – 221005
(0542) 2368404, 2307270, 6701706
F: (0542) 2368174;
E: hdmathematics@gmail.com
W : www.bhu.ac.in


ATTESTED
Principal
Bidhan Chandra College
Asansol





Dr. Shyamal Kumar Hui
Professor
Department of Mathematics
Mobile No.: +91-9332929024
Email: skhui@math.buruniv.ac.in



The University of Burdwan
Golapbag, Burdwan-713104
West Bengal, India

Certificate of Collaboration

I am pleased to write this certificate of ongoing research collaboration, details of which are as follows:

- **Collaboration Between:**
 - ❖ **The University of Burdwan**
Name of the author: Prof. Shyamal Kumar Hui
Department of Mathematics, The
University of Burdwan, Burdwan-713104, India
and
 - ❖ **Bidhan Chandra College, Asansol**
Name of the author: Dr. Santu Dey
Department of Mathematics, Bidhan Chandra College, Asansol - 4,
West Bengal-713304 , India.
- **Duration of Collaboration:** 2020-2021.
- **Details of Collaboration:** Some types of Ricci solitons on contact geometry.
- **Output of Collaboration:**
- ❖ **Research Publication:**
 - **Journal Publication:** *Conformal η -Ricci soliton on Sasakian manifold, Asian-European Journal of Mathematics(UGC listed) (2021) 2250035 (17 pages), World Scientific Publishing Company DOI: 10.1142/S1793557122500358.

SKHui
01/04/2022
Dr. Shyamal Kumar Hui
Professor of Mathematics
The University of Burdwan

[Signature]
ATTESTED

[Signature]
**Principal
Bidhan Chandra College
Asansol**

যা দৰ পুৱ বিশ্ববিদ্যালয়

**FACULTY OF SCIENCE
DEPARTMENT OF MATHEMATICS**



JADAVPUR UNIVERSITY
Kolkata - 700 032, India
Telephone : 91 (33) 2414 6717

Certificate of Collaboration

I am pleased to write this certificate of ongoing research collaboration, details of which are as follows:

- **Collaboration Between:**
 - ❖ Department of Mathematics, Jadavpur University
Name of the author: Prof. Arindam Bhattacharyya
Department of Mathematics, Jadavpur University, Kolkata-700032, India
and
 - ❖ Bidhan Chandra College, Asansol
Name of the author: Dr. Santu Dey
Department of Mathematics, Bidhan Chandra College, Asansol - 4,
West Bengal-713304, India.
- **Duration of Collaboration:** 2019-2020.
- **Details of Collaboration:** Conformal mappings of some Einstein manifolds.
- **Output of Collaboration:** 1 publication in a peer reviewed International journal.
- ❖ **Research Publication:**
 - **Journal Publication:** CONFORMAL MAPPINGS OF GENERALIZED QUASI-EINSTEIN MANIFOLDS ADMITTING SPECIAL VECTOR FIELDS, Gulf Journal of Mathematics (UGC listed), Vol 9, Issue 1 (2020) 27-41.

Arindam Bhattacharyya 14/12/2022
Prof. Arindam Bhattacharyya
Department of Mathematics,
Jadavpur University,
Kolkata-700032, India

Dr. Arindam Bhattacharyya
Department of Mathematics
Jadavpur University
Kolkata - 700032

ATTESTED
[Signature]
Principal
Bidhan Chandra College
Asansol

[Signature]

6 April 2022
Collaboration Agreement.

To whom it may concern,

I am pleased to write this certificate of ongoing research collaboration, details of which follows:

Collaboration Between:

Charged Particle Optics Lab,

Principal Investigator: Prof. Anjam Khursheed,
Electrical and Computer Engineering, National University of Singapore
4 Engineering Drive 3, Singapore 117583

Microsystem Design-integration Lab,

Principal Investigator: Dr. Amit Banerjee,
Physics Department, Bidhan Chandra College,
Asansol, West Bengal 713303

Duration of Collaboration: 2020-2022 and continuing.

Details of Collaboration: Research collaboration related to Charged Particle Optics.

Output of Collaboration:

Journal Publication: Quantitative material analysis using secondary electron energy spectromicroscopy, Scientific Reports, volume 10, Article number: 22144 (2020), Publisher: Nature Group, <https://www.nature.com/articles/s41598-020-78973-0>

Yours sincerely,

Anjam Khursheed

Prof. Anjam Khursheed

ATTESTED


Principal
Bidhan Chandra College
Asansol



RANIGANJ GIRLS' COLLEGE

P.O.:Searsole Rajbari-713358, District: Paschim Bardhaman, West Bengal, India
Principal: 0341-2444069, Telefax: 0341-2449274, Office: 0341-2445280
e-mail: raniganjgirlscollege@gmail.com, Website: www.raniganjgirlscollege.org

NAAC Accredited: B+

Ref. No.

Date

CERTIFICATE OF RESEARCH COLLABORATION

I am pleased to write this certificate of ongoing research collaboration, details of which are as follows,
Collaboration Between:

1. Dr. Saumendra Sankar De Sarkar, Department of Physics, Raniganj Girls' College, Searsole Rajbari-713358, West Bengal, India, E-mail: ssdesarkar@gmail.com
2. Dr. Saumen Chakraborty, Department of Physics, Bidhan Chandra College, Asansol-713303, West Bengal, India, E-mail: saumenbcc@gmail.com

Duration Of Collaboration: January 2017 to till date

Details of Collaboration: Research collaboration related to the study of rich behaviors in isolated and coupled electronic oscillators and their characterization.

Research Publication under Collaboration:
Journal Publications-

1. S.S. De Sarkar, A. K. Sharma & S. Chakraborty, "Chaos, antimonotonicity and coexisting attractors in Van der Pol oscillator based electronic circuit". *Analog Integrated Circuits and Signal Processing* (2021). <https://doi.org/10.1007/s10470-021-01934-8>
2. S. Chakraborty and S.S. De Sarkar (2020) "Dynamical Behavior of a Van der Pol Oscillator Circuit with Internal Delay", i-manager's Journal on Circuits and Systems, 8(2), 16-21. <https://doi.org/10.26634/jcir.8.2.18161>
3. S. Chakraborty, Manaj Dandapat, S. S. De Sarkar, (2021) "Effect of self feedback on mean-field coupled oscillators: revival and quenching of oscillations", International journal of Chaos and Bifurcation, World Scientific, Vol. 31, No. 05, 2150078, DOI:10.1142/S0218127421500784
4. S S De Sarkar, S Chakraborty, "Nonlinear dynamics of a class of derivative controlled Chua's circuit", International Journal of Dynamics and Control, Vol.6, No.2, June 2017, Pages 129-140. DOI 10.1007/s40435-017-0346-2, ISSN 2195-268X

Conference Publications:

1. S. Chakraborty and S. S. De Sarkar, "Designing a chaotic oscillator using Sallen Key high pass filter", *Proceedings of National Conference on Materials, Devices and Circuits in Communication Technology, 2020 (MDCCT 2020)*, November 29-December 01, 2021, Organised Jointly by IETE Burdwan Sub Centre and Department of Physics, The University of Burdwan, Burdwan, West Bengal, ISBN: 978-81-955389-3-5).
2. S. Chakraborty and S. S. De Sarkar, "Dynamic Behavior of a Vanderpol Oscillator Circuit with Internal Delay", 2nd International Conference on Smart Automation in Computer, Electrical, Electronics and Communication Engineering (ICSA-2021), SRM Valliammai engineering College, Kattankulathur-603203, India, April 10, 2021.
3. S. Chakraborty and S. S. De Sarkar, "Regeneration of Oscillation in Chua Circuit under mean field diffusive coupling using derivative control", National Conference On Nonlinear Dynamics and its applications (CNDA-16), Department of Physics, Durgapur Govt. College and Michael Madhusudan Memorial College, Durgapur, 713214, India, February 07-09, 2017.

ATTESTED

Principal
Bidhan Chandra College
Asansol

Chhalu De

Principal 05-04-'22

Raniganj Girls' College
Searsole Rajbari-713358
Paschim Bardhaman, W.B.

ben



Date: 05/04/2022

I am pleased to write this certificate of on-going research collaboration, details of which are given as follows,

Collaboration Between:

1. **Dr. Manaj Dandapathak**
 - (a) Department of Physics, Ramkrishna Mahato Govt. Engineering College, Purulia (*Formerly, Purulia Government Engineering College*), Agharpur-723103, West Bengal, India, phymanoj@yahoo.co.in
 - (b) Physics Department, Hooghly Mohsin College, Chinsurah, Hooghly-712101, West Bengal, India (*Formerly posted at the College*)
2. **Saumen Chakraborty**, Department of Physics, Bidhan Chandra College, Asansol-713303, West Bengal, India, E-mail: saumenbcc@gmail.com

Duration Of Collaboration: July 2016 to till date

Details of Collaboration: Research collaboration related to the study of the dynamics of electronic and optical systems and their characterization.

Research Publication under Collaboration:

Journal Publications-

1. S. Chakraborty, **Manaj Dandapathak**, S.S. De Sarkar, Effect of self-feedback on mean-field coupled oscillators: revival and quenching of oscillations, International journal of Chaos and Bifurcation, World Scientific, Vol. 31, No. 05, 2150078 (2021), DOI:10.1142/S0218127421500784
2. S Chakraborty , **M Dandapathak**, B C Sarkar, "Oscillation quenching in third order phase locked loop coupled by mean field diffusive coupling", Chaos (AIP), Volume 26, Issue 11, Nov 2016, 113106. 1054-1500

Conference Publications:

1. **Manaj Dandapathak** and S. Chakraborty, "Studies on Nonlinear Dynamics of optical Costas Loop Having High Frequency Gain", National Conference On Nonlinear Dynamics and its applications (CNDA-16), Department of Physics, Durgapur Govt. College and Michael Madhusudan Memorial College, Durgapur, 713214, India, February 07-09, 2017.

Manaj Dandapathak

Dr. Manaj Dandapathak,
Assistant Professor of Physics,

Assistant Professor of Physics, W.B.E.S.
Ramkrishna Mahato Government Engineering College
Vill- Agharpur, P.O.- Ramamoti, Block-Joypur
District- Purulia, Pin- 723103

afzal

ATTESTED

Principal
Bidhan Chandra College
Asansol

Certificate of Collaboration

I am pleased to write this certificate of ongoing collaboration, details of which are as follows:

Collaboration Between:

- **Faculty of Science and Engineering,
Jharkhand Rai University, Ranchi**

Principal Investigator: Dr. Shraddha Prasad,
Associate Professor, Jharkhand Rai University, Ranchi
Jharkhand- 835222
and

- **Department of Physics,**

Bidhan Chandra College, Asansol

Principal Investigator: Dr. Ajay Kumar Sharma,
Department of Physics, B.C. College, Asansol
West Bengal- 713304

Duration of Collaboration: 2017-2022 and continuing.

Details of Collaboration: Research collaboration related to Physico-mechanical Properties of Ternary Chalcopyrites.

Output of Collaboration:

- **Research Publications:**

Journal Publications:-

- "An Empirical Relation for the Calculation of Ionicity of Ternary Chalcopyrite Semi-Conductors" Ajay Kumar Sharma, Shraddha Prasad, Sanjay Kumar Gorai, International Journal of Innovation Research in Technology, 2019, Volume- 5(8), 137-139.

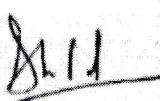
- "Relation of Lattice Energy with Electronegativity and Principal Quantum number for Ternary Chalcopyrite Semiconductors", Ajay Kumar Sharma, Shraddha Prasad, Sanjay Kumar Gorai, International Journal of Creative and Innovative Research In All Studies, 2019, Volume-1(10), 37-41.

- "Plasmon Energy and Lattice Energy of Ternary Chalcopyrite Semi-Conductors", Ajay Kumar Sharma, Shraddha Prasad, Sanjay Kumar Gorai, International Journal of Innovation Research in Technology, 2019, Volume-6(1), 216-218.

- "HOMO and LUMO Approach of Bulk Modulus of Ternary Chalcopyrites", Ajay Kumar Sharma, Shraddha Prasad, Sanjay Kumar Gorai, Journal of Resource Management and Technology, 2020, Volume- 11(2), 71-75.

- "Role of Ternary Chalcopyrites in Enhancing Green Technologies and Innovation", Ajay Kumar Sharma, Shraddha Prasad, Sanjay Kumar Gorai, Akshar Wangmay, 2020, Special Issue-I, 208-210.

- "Ternary Chalcopyrite: Most Promising Material of This Century", Ajay Kumar Sharma, Shraddha Prasad, Advances in Science & Technology (2020), Empyreal Publishing House, 1st Edition, pp-19-23, ISBN-978-81-946375-0-9.



Dr. Shraddha Prasad
Associate Professor
Faculty of Science and Engineering
Jharkhand Rai University, Ranchi

ATTESTED



Principal
Bidhan Chandra College
Asansol

Dr. Ajay Kumar Sharma
Assistant Professor (Physics)
Department of Physics
Bidhan Chandra College, Asansol