



International Center for Materials NanoArchitectonics (MANA)

National Institute for Materials Science (NIMS)

1-1 Namiki, Tsukuba 305-0044, Japan Telephone +81 29 860 4709 Facsimile +81 29 860 4706



July 7, 2017

Prof. Batu Ghosh
Department of Physics,
TRIVENIDEVI BHALOTIA COLLEGE
Raniganj, Burdwan -713347,
India

Letter of Invitation

Dear Prof. Batu Ghosh,

We are delighted to inform that you are cordially invited as a guest researcher to the National Institute for Materials Science (NIMS).

We would appreciate having an informative academic discussion and collaboration with you for 24 days from September 28th, 2017 to October 25th, 2017.

We shall support your travel expense as described on attached Terms and Conditions.

Your invitation will become valid upon the receipt of your signed Statement of Acceptance by NIMS, which indicates your acceptance of the terms and conditions stated in the attachment.

Sincerely,

Naoto Shirahata
Associate Principal Investigator
Soft Chemistry Group
WPI Research Center for Materials Nanoarchitectonics (MANA),
National Institute for Materials Science (NIMS)

Terms and Conditions

1. Guest researchers of NIMS shall:

* Cooperate to achieve the purpose of this invitation and abide by the rules and regulations set up by the institute.

2. The period of stay as a guest researcher is specified in the Invitation Letter.

3. The terms and conditions for guest researchers are as follows.

*NIMS shall provide each guest researcher with a round-trip economy class air ticket or air fare to Japan from his home country and domestic transportation fee between Narita and Tsukuba, in accordance with NIMS rules and regulations.

* Each guest researcher shall be provided Ninomiya House (excluding utility fee) by NIMS for his stay in Tsukuba.

* An accommodation adjustment of 3,800JPY per night shall be paid to cover expenses during his stay in Tsukuba.

* No compensation other than the allowance described above shall be paid.

* NIMS is not responsible for any injuries or illness during his stay in Japan.

*Each guest researcher ought to carry any insurance against accidents at his burden cost.

4. Other* Please promptly notify NIMS when any changes are made in the itinerary for any reasons.

Statement of Acceptance

Date: _____

Naoto Shirahata
Associate Principal Investigator
Soft Chemistry Group
WPI Research Center for Materials Nanoarchitectonics (MANA),
National Institute for Materials Science (NIMS)

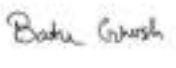
Dear Dr. Naoto Shirahata,

In response to the Letter of Invitation dated July 7th, 2017, the undersigned, hereby accept the position of guest researchers in NIMS under the attached terms and conditions.

Upon signing this Statement of Acceptance, I declare that I do not get involved in any misconduct concerning research activities, leakage of information or research funds misuse during my stay at NIMS.

The period of my stay at NIMS is from September 28th, 2017 to October 25th, 2017.

Sincerely,

Signed:  _____
Typed: Batu Ghosh

経費負担証明書
(CERTIFICATE OF FINANCIAL SUPPORT)

学振交第357号
平成30年1月19日
January 19, 2018
Fellow's ID No.: L18530

氏名 (Name): GHOSH Batu
国籍 (Nationality): インド (INDIA)
生年月日 (Date of Birth): 1981年12月30日 (30-Dec-81)

本会は、外国人研究者招へい事業（外国人招へい研究者（長期））により、下記受入研究者が招へいする上記の者に対し、下記のとおり、支給経費の援助を行う。
なお、上記の者は採用期間中、日本に滞在し、受入研究機関において共同研究を行う。

The Japan Society for the Promotion of Science (JSPS) has awarded a fellowship to the above named person (Fellow) under the "JSPS Invitational Fellowship for Research in Japan (Long-term)." The fellowship is granted based upon the invitation of the Japanese host researcher.

The Fellow will conduct collaborative research at the host institution indicated below. The terms of the fellowship are as follows:

記

受入研究者: 国立研究開発法人物質・材料研究機構
准主任研究者 白幡 直人
Host Researcher: Associate Principal Investigator Naoto SHIRAHATA
International Center for Materials Nanoarchitectonics
National Institute for Materials Science

採用期間: 平成30年度中（平成30年4月1日から平成31年3月31日まで）に来日し、10か月間
Fellowship Tenure: 10 consecutive months from the arrival date in Japan, which must be within the Japanese 2018 fiscal year (from April 1, 2018 to March 31, 2019)

支給経費: 1) 往復渡航費 本会の規程による。
Financial Support: Round-trip air ticket issued according to JSPS regulations
2) 滞在費 月額 387,600円
Maintenance allowance: ¥387,600 per month
3) 海外旅行保険
Overseas travel insurance

* ただし、採用期間開始前から既に日本国内に居住している場合は、本会は来日に係る渡航費は支給しない。
If the Fellow is already residing in Japan when the fellowship commences, the above-mentioned air ticket to Japan will not be provided.

独立行政法人 日本学術振興会
理事長 安西 祐一 郎



President

Japan Society for the Promotion of Science

NATIONAL INSTITUTE OF TECHNOLOGY, DURGAPUR
MAHATMA GANDHI AVENUE, DURGAPUR-713209, WEST BENGAL, INDIA
Website: www.nitdgp.ac.in

April 06, 2015

TO WHOM IT MAY CONCERN

This is to certify that by **Suparna Chakraborty** has successfully completed all prescribed requirements of the Institute for the degree of **Doctor of Philosophy (PhD)**, Department of **Physics**.

The date of viva voce: **March 24th, 2015**

Title of the PhD thesis: **Density Dependence of The Symmetry Energy and The Equation of State of Isospin Asymmetric Nuclear Matter With Phenomenological Effective Interactions.**

Department: **Physics.**

Registration No: **NITD/Ph.D/PH/2012/00358**

Deputy Registrar (Academic & Examination)

उपकुल सचिव (शैक्षणिक एवं परीक्षा)
DEPUTY REGISTRAR (ACAD & EXAMS)
राष्ट्रीय प्रौद्योगिकी संस्था
NATIONAL INSTITUTE OF TECHNOLOGY
दुर्गापुर / DURGAPUR

Dean (Research & Consultancy)

Dean, Research & Consultancy
National Institute of Technology
Durgapur - 713209, INDIA

Note: Validity of this certificate will expire on the award of the degree in the next convocation.



CERTIFICATE FROM THE SUPERVISOR(S)

This is to certify that the thesis entitled "**Density dependence of the symmetry energy and the equation of state of isospin asymmetric nuclear matter with phenomenological effective interactions**" submitted by **Suparna Chakraborty** to National Institute of Technology Durgapur, India for the award of the degree of Doctor of Philosophy in Science (Physics) is a record of her own research work. She has carried out these investigations under the joint supervision of Dr. S. Sahoo, Department of Physics, National Institute of Technology, Durgapur and Dr. B. Sahoo, Department of Physics, Triveni Devi Bhalotia College, Raniganj, West Bengal, India. The contents of this thesis, in full or in parts, have not been submitted to any other institute or university for the award of any degree or diploma.

SSahoo
24/03/2015
(Dr. S. Sahoo)

Department of Physics
National Institute of Technology
Durgapur – 713209
West Bengal, India
Assistant Professor
Department of Physics
National Institute of Technology
Durgapur-713209, (W.B), INDIA

B. Sahoo
24.3.15
(Dr. B. Sahoo)

Department of Physics
Triveni Devi Bhalotia College,
Raniganj- 713347
West Bengal, India
Assistant Professor
Department of Physics
Triveni Devi Bhalotia College
Raniganj - 713347
West Bengal, India



Phone : (0341) 2444780,
(0341) 2444275

TRIVENIDEVI BHALOTIA COLLEGE

(Govt. Sponsored)

Post : Raniganj, Dist. : Burdwan, 713347

ESTD - 1957

Ref. No. _____

Date : 10th March, 2015

To,
The Dean (Research & Consultancy)
National Institute of Technology
Durgapur - 713209

Sub: Information regarding the change of Institute Address

Dear Sir,

With due respect I want to inform you that I am working as a supervisor (along with Dr. S. Sahoo, Assistant Professor, Department of Physics, NIT Durgapur) of *Mrs. Suparna Chakraborty* (Registration No. = NITD/Ph.D/PH/2012/00358), a part-time research scholar, Department of Physics, NIT Durgapur. Her Ph. D. Thesis reports have already come and Ph. D. Defence Seminar and Viva will be held on 24th March, 2015. Previously I was working as an Assistant Professor, Department of Physics, DIATM Durgapur. But recently on 4th March, 2015 I have joined as an Assistant Professor in the Department of Physics, Triveni Devi Bhalotia College, Raniganj (Govt. College).

Previous Address: Assistant Professor, Department of Physics, DIATM Durgapur.

**Present Address: Assistant Professor, Department of Physics,
Triveni Devi Bhalotia College, Raniganj.**

This is for your kind information and necessary action.

Yours Sincerely

B. Sahoo
(Dr. B. Sahoo) 10.3.15

Assistant Professor
Department of Physics

Triveni Devi Bhalotia College, Raniganj

Copy to:

Deputy Registrar (Academic & Examination), NIT Durgapur

National Institute of Technology, Durgapur
Mahatma Gandhi Avenue, Durgapur-713209, West Bengal, INDIA

Annexure-III



For Office use only

- Category of Research Scholar: _____
- Roll No. _____
- Date of Admission: _____
- Registration No.: _____
- Date of Registration _____

Dean (Academic)

Registration Form for PhD Programme

1. Department/Centre applied for: PHYSICS
2. Name of the Candidate: Mr./Mrs./Miss MAHADEB PAL
(Block Capital Letters)
3. Roll No. 16PHI304
4. Date of admission in PhD programme: 27/07/2016
5. Father's Name: NEMAI CHANDRA PAL
(Block Capital Letters)
6. Date of Birth: 10/04/1983
7. Category of Research Scholar: T
 - L. Full-time Institute-sponsored research scholar with Institute Scholarship
 - M. Full-time research scholar with financial support from Government/ Semi-Government organizations/ other organizations
 - N. Full-time foreign research scholar admitted through Government of India
 - O. Full-time research scholar under QIP/ EFIP scheme
 - P. Full-time research scholar selected in externally sponsored projects in the Institute
 - Q. Full-time self-sponsored research scholar
 - R. Part-time research scholar from the Institute Faculty/ Staff/ Project Staff
 - S. Part-time sponsored research scholar
 - T. Part-time self-sponsored research scholar
 - U. Part-time Foreign research scholar from foreign institutions/organization
 - V. Part-time Indian national research scholar from foreign institutions/organization
8. Gender: Male/ Female/ Transgender
9. Marital Status: Married/ Single
10. Category: SC/ ST/ OBC/ OPEN; Physically Challenged: Yes/ No
11. Nationality: INDIAN
12. GATE/ NET (if any): Qualified (Yes/No): Yes Score: _____ Rank: 160
Discipline: PHYSICALSCIENCE Year: 2010

Proposed Research Area [Two copies of the brief out line of proposed research work, countersigned by the proposed supervisor(s) are to be submitted along with this application]:

A complete study on spin polarised nuclear matter and finite nuclei with finite range simple effective interaction

14. Previous research experience, if any:

A study of neutron skin thickness in different models.

15. Publication, if any:

16. Proposed Supervisor(s) & their affiliation [one Supervisor must be from the concerned department of NIT, Durgapur. For supervisor(s) from other organizations, his/her CV and willingness certificate and a no-objection certificate from his/her organization must be enclosed]

Name of the Supervisor(s)	Designation & Name of the Organization	Signature
Dr. Sukadev Sahoo	Assistant Professor, NIT Durgapur, Physics Department	<i>[Signature]</i> 28/11/16
Dr. Babita Sahoo	Assistant Professor, Department of Physics, T.D.B College, Rahiganj	B. Sahoo 28.11.16
Dr. Suparna Chakraborty	Assistant Prof., Department of Physics M.M.M college, Durgapur	Sehkraborty 28/11/16

17. Address for Communication: vill-Kukura, P.O - Amila, Dist - Burdwan, Pin-713423

18. Telephone/Mobile No. 9609797956 E-Mail ID: mpal.phy100@gmail.com

19. Academic Qualification: (Starting from Madhyamik or equivalent Examination)

Name of Exam. Passed	Name of the School/College/Institute/University	Year of Passing	Discipline/ Specialization	Percentage of Marks/CGPA
M.P	KUKURA Anilabala High School	2001	DEVELOP. MATHS, P.S.C. L.S.C. HWT, GEO	86.5%
H.S	Seharabazar C. K Institute	2003	B.M., Eng, Math, Phd, chem, Bio	81.1%
B.SC (H)	Burdwan Raj College	2006	PHYSICS (H) Math, Electronics	71.25%
M.SC	Jadavpur University	2008	PHYSICS	71.8%

(Enclose photocopies of certificates, mark sheets/ Grade cards etc.)

20. If employed, [Name of the employer, nature of work, total experience, copy of the no-objection certificate from the organizer must be enclosed]:

HAZRA, Govt College, NBHED, Permanent, one year, Assst Prof. in Physics, Sukid Matangir

I do hereby declare that the information furnished in this application is true to the best of my knowledge and belief. If admitted, I shall abide by the rules and regulations of the Institute and Halls attached to it. If any information furnished in this application is found to be untrue, I am liable to forfeit the seat allotted to me any time in future & legal action be taken against me.

Mahadeb Pal
Full signature of the Applicant

Date: 28.11.16
Durgapur

National Institute of Technology Durgapur
DEPARTMENT OF PHYSICS

Formation of Doctoral Scrutiny Committee (DSC)

The DSC is hereby constituted for the doctoral study of the following candidate.

Name: MAHADEB PAL

Roll No.: 16PH1304

Date of Admission: July 27, 2016

DSC

Sl No	Norm	Name	Dept./ Organization	Designation
1	Chairperson (DRPC)	Chairperson (DRPC) – ex-officio		Chairperson
2	Two faculty members of the department having Ph.D. degree [if not available, faculty member(s) from other department(s) with Ph.D. degree]	a. Dr. M. K. Mandal	physics / NITD	Member
3		b. Dr. S. Bose	physics / NITD	Member
4	One faculty member of any other department of the Institute having Ph.D. degree	a. Dr. R. N. Saha	Chemistry / NITD	Member
5	Concerned supervisor(s) for the research scholar	a. Dr. S. SAHOO	PHYSICS / NITD	Member
6		b. Dr. B. SAHOO	PHYSICS / TDB College, Raniganj	Member
7		c. Dr. S. CHAKRA BORTY	PHYSICS / MMH College, Durgapur	Member

Each of the supervisors is supervising less than 8 full time Ph.D. research scholars presently.

B. Sahoo Signature of the DSC Members
04.08.16

Signature
04.08.2016

Signature of Chairperson, DSC

Signature 05.08.2016

Signature 4/8/16
M. Mandal
4.8.16

[Please attach the CV, consent letter and NOC of the employer from the supervisor if s/he is not a faculty member of NIT Durgapur. NOC is not required if the supervisor belongs to an institution/organization having MoU with NIT Durgapur.]

Dean (Academic)

Theoretical study of some properties of finite nuclei and core-crust transition density of neutron stars with finite range effective interaction

Synopsis Submitted To
National Institute of Technology Durgapur
In Partial Fulfilment of the Requirements
for the Degree of
Doctor of Philosophy

By
MAHADEB PAL
(Reg. No.: NITD/PhD/PH/2017/00844)
(Roll No.: 16PH1304)

Under the supervision of

Dr. S. Sahoo
Department of Physics, NIT Durgapur

Dr. B. Sahoo
Department of Physics, T. D. B. College, Raniganj

Dr. S. Chakraborty
Department of Physics, M. M. M College, Durgapur



DEPARTMENT OF PHYSICS
NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR
DURGAPUR - 713209, WEST BENGAL
INDIA

July, 2022

12. Any addition, alteration or novation of terms of agreement relevant to such educational tour may be incorporated and treated as a part of this agreement by mutual consent of both parties by way of expressed terms.

12. The Agreement may be extended after a period of one year if the above conditions are satisfactorily complied by both parties. In such event, a fresh MOU shall be executed.

IN WITNESS WHEREOF the parties hereunto set and subscribed their respective hands and seals on this day, month and year above written.

Name

Dr. Asish Kumar Dey
Principal,
Trivenidevi Bhalotia College,
Raniganj

A. K. Dey

Signature and date

Principal

Triveni Devi Bhalotia College
Raniganj, Paschim Bardhaman

1. Witness

Subrata Chakrabarty

2. Witness

Mausermi Banerjee

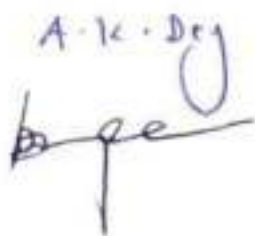
Name

PARIBRAJAK
Proprietor
Sumit Banerjee
Digital Complex
S.B.Gorai Road
Asansol-713304
Signature and Date

PARIBRAJAK
Sumit Banerjee
Proprietor

1. That the Tour Programs shall be informed to the Second Party well in advance, providing details of names and addresses of the student participants along with their address and CONSENT LETTERS/NO OBJECTION LETTERS submitted by their Parents/Guardians.
2. That no student below the age of 18 years shall be made a part of the Tour Team.
3. That no student suffering from any acute ailments shall be included in the Tour Team by the College authorities.
4. That at the time of finalization of the Tour destination and its duration, the Second Party shall provide a detail of the Stopover Points at the end of each day of the Tour and shall also specify the requisite charges for the entire tour to be borne by the College.
5. That during the entire Tour the Second Party shall take prudent and adequate care for the safety and security of the Team Members to be comprised of Students and Teacher/Staff members making adequate arrangements for their travel reservations, proper food and drinking water and accommodation at the Stopover Points.
6. That in case of any Medical Exigency the Second Party shall take prompt and effective steps.
7. That the First Party shall maintain a Tour Register at the College Office which shall contain a short write-up containing details of the Tour to be undertaken including the names and details of the participants of the Tour which shall also contain their signatures before departure. The original Consent/No Objection Letters of the Parents/Guardians shall be retained with the register until completion of the tour.
8. That the First Party shall make an endorsement of the completion of the Tour/Excursion after safe return of all the Students and Teachers/Staff members.
9. That the Memorandum of Understanding shall remain operational/valid for a period of 1 year from its date of execution.
10. That all financial supports for this purpose shall be borne by the College Authorities and the Technical support shall be provided by the Second Party.
11. This Agreement may be terminated before completion of ONE year by of ONE month's prior notice issued by either of the parties.

A. K. Dey


A. K. Dey


भारतीय गैर न्यायिक

बीस रुपये

रु.20



Rs.20

TWENTY
RUPEES

INDIA NON JUDICIAL

पश्चिम बंगाल पश्चिम बंगाल WEST BENGAL

29AA 261430

MEMORANDUM OF UNDERSTANDING (MOU)

Entered into Between

TRIVENIDEVI BHALOTIA COLLEGE, RANIGANJ as First Party

AND

PARIBRAJAK, ASANSOL a Travel Agency as Second Party

This Memorandum of Understanding (Agreement) is entered into at ...Raniganj... on this day. 23.12.2022... BETWEEN Trivenidevi Bhalotia College, Raniganj, West Bengal, a Higher Education Institute (HEI) represented by Dr. Asish Kumar Dey, Principal herein after referred to as the First Party and Paribrajak, a private Travel Agency, having its registered address at Asansol, Paschim Bardhaman, West Bengal, represented by Sri. Sumit Banerjee, its Proprietor, herein after referred as the Second Party.

WHEREAS the First Party, the Principal of Trivenidevi Bhalotia College, Raniganj, in compliance with the academic requirements of University Grants Commission, needs to organize short educational tour programs for various courses run by the college.

AND WHEREAS the Second Party, Paribrajak, a Private Travel Agency at Asansol is an experienced Tour Organizer has agreed to conduct the Educational Tour Programs of the First Party.

AND WHEREAS the Parties herein above, after long deliberations over conducting Tour Programs for the students of Trivenidevi Bhalotia College, Raniganj have hereunto agreed upon the following Terms and Conditions as laid down below:

A. K. Dey
Sumit Banerjee

A. K. Dey
Sumit Banerjee



Memorandum of Understanding

This agreement is entered into Between the two institutions M/s. Roy's Institute of Competitive Examination Pvt. Ltd. (hereinafter RICE Education), having its registered office at "Dishari Bhawan" 11/1 B.T. Road, Belghoria, Kolkata, West Bengal, Pin -700056 AND Trivenidevi Bhalotia College, Raniganj, Paschim Bardhaman, West Bengal -713347, India, affiliated under Kazi Nazrul University, West Bengal.

Both the institutions Undertake to Promote and Develop Cooperation with each other on various activities as listed below in view of Employability program for the College students:

RICE Education Deliverables:

1. Overall Career Guidance Seminar for all College students/ Alumni from UG to PG twice a year
2. Special One- On - One Career Counselling session for the aspirants twice a year
3. Govt. Job Related information Camp time to time through College Placement Cell
4. Free Demo Classes for the aspirants for both Offline and Online Mode twice a year
5. RICE Merit Scholarship Test once a year to offer special fees structure on RICE Offline Courses for deserving candidates.
6. Free Mock Interview sessions.
7. Free Sample Mock Test sessions for the aspirants twice in a year.
8. Special Motivation Classes from the successful students twice in a year (offline/online).
9. Share success stories in future with the college placement cell if any.
10. Free Assessment test once in a year (offline /online).

College Deliverables:

1. Cooperation to conduct the above programs as per the on mutual discussion (Date, Time and Schedule)
2. Provide Necessary Infrastructure to Conduct such Sessions
3. There is no fund flow from one institute to another

Terms & Conditions:

1. Any dispute arising during the course of implementation of this initiative will be resolved through mutual discussions by both the Institutions
2. Termination of this MOU is subject to prior notification of 1 month from any of these two Institutions.
3. This MOU will remain valid for a period of two years from the date of signing of the MOU. Further renewal of the MOU will be based on mutual discussion and consent of both the parties.

A. K. De 08/04/2022
Principal
Trivenidevi Bhalotia College

Principal
Triveni Devi Bhalotia College
Raniganj, Paschim Bardhaman

Witness: Arunabha Bandyopadhyay
Co-ordinator
I.Q.A.C.
T.D.B. College, Raniganj

CEO
RICE Education.

Charan Majumdar

Witness:

Subinoy Chandra
08/04/22

