

PART –A: GENERAL INFORMATION AND ACADEMIC BACKGROUND

1. Name in Block Letter: Dr. RUPAM SEN
2. Father's Name: Late Asim Kumar Sen
3. Mother's Name: Smt. Ashoka Sen
4. Department and Institution: Physics / Srikishan Sarma College, Hailakandi, Assam

5. Academic Qualification (from HSLC to Post Graduate)

Examinations	Name of Board/ University	Year of Passing	Percentage of Marks obtained	Division/ Class/Grade	Subject(s)
HSLC	SEBA, ASSAM	1989	66.7	I	ENG., BENG., S. STDY., ADV. MATH., GEN. MATH., GEN. SCIENCE., SANSKRIT
HS [SCIENCE]	AHSEC, ASSAM	1991	62.8	I	PHY., CHEM., MATH., BIO., ENG., BENG.
B.Sc.	ASSAM UNIVERSITY, SILCHAR	1995	60.7	I	PHY[MAJOR], CHEM., MATH
M.Sc.	GAUHATI UNIVERSITY	1997	63.4	I	PHYSICS

6. Research Degree (s)

Degree	Title	Date of award	University
M.Phil	STUDY OF PERTURBATION IN TACHYON COSMOLOGY FROM STRING THEORY	04.02.2009	ASSAM UNIVERSITY, SILCHAR
Ph.D / D. Phil	VIBRATIONAL SPECTRA ANALYSIS OF FULLERENE C80 AND ITS COMPOUNDS USING U(2) LIE ALGEBRA	07.10.2013	ASSAM UNIVERSITY, SILCHAR
D.Sc / D. Litt	-----	-----	-----

7. Participation in the corporate life of the institution :

- i. The Convenor, SPORTS CELL, IQAC, S. S. College, 2007-2011, 2013-14
- ii. Technical expert; EDUSAT, S. S. College, Hailakandi, 2009-2012
- iii. In-charge, Automatic Weather Station, S. S. College, Hailakandi. ,since 2010.
- iv. Members of different cells, IQAC, S. S. College, Hailakandi
- v. Member of the Editorial board, Res. & Publ. Cell journal, 2012, 2013.
- vi. Associate Editor, PURSUITS, ISSN Journal of the College.2014-2015
- vii. The Convenor, Publication Cell, NAAC Peer Team Visit Committee.2012
- viii. The Convenor and Member of Admission and Routine Committee of the College 2013, 2014.
- ix. Assistant Officer In-charge, Assam University, Silchar, Semester Exam. in S. S. College in 2012.
- x. Assistant Zonal Officer, AHSEC, S. S. College Zone, 2012.
- xi. Assistant Zonal Officer, TDC Odd Sem. Exam. 2013-2014.
- xii. H.O.D , Physics, S. S. College (08.08.13 – 07.08.14),
- xiii. Member of Selection Committee of MSDP 11th Plan for equipment purchase.
- xiv. Secretary, Teachers' Council, S. S. College (2014-2022)
- xv. External Invigilator of R. K. Nagar College for ODD Sem. Exam. 2014 (21.11.14 – 12.12.14)
- xvi. External Practical Examiner of H.S. Practical. Exam. In Lala Centre (Lala H.S. and M. P. School) [12.01.15, 13.01.15]
- xvii. Answer Script Evaluator (Honours) (Paper PSH 101) of AUS of ODD Sem. Exam. 2014
- xviii. Member of BPGS of Physics, Assam University 2015-2018
- xix. Member of BUGS of Physics, Assam University, Silchar 2015;
- xx. Paper setter of odd sem., AUS, 2015 and many other occasions.
- xxi. Assistant Zonal Officer, Odd Sem. Zone, S. S. College, 2015,

- xxii. External Invigilator of Lala Rural College for even Sem. Exam. 2016
- xxiii. Head examiner , Physics. S. S. College Centre, even Sem. Exam. 2016
- xxxiv. Member of Purchase committee, S. S. College, 2015- till date
- xxxv. Member BUGS, AUS, 2016-19, 2023-till date
- xxxvi. HOD, Department of Physics, from 05.09.2016; (21.01.2023- till date)
- xxxvii. President SMDC, Harokishore High School, Hailakandi (2017 for 5 years)
- xxxviii. Paper Moderator, Physics, Assam University, Silchar (number of occasions)
- xxxix. Co-ordinator of DBT Star College Scheme of S. S. College, Hailakandi for 2 years
- xxxx. Associate Editor of the research Journal PURSUITS of S. S. College.
- Xxxxi. Convenor of Media Cell IQAC , S. S. College for last 4 years (till date)

8. Period of Teaching experience (in years): 25 YEARS
9. Research Experience (in years) : 16 YEARS
10. Details of research guidance : NIL
11. Administrative experience (in years) : 04 YEARS (HOD) +07 years (TC SECRETARY) = 11 YEARS
HOD: 08.08.13 – 07.08.14; HOD: 05.09.2016-04.09.2017, 21.01.2023 – till date
T.C. SECRETARY: 2014 - 2021
12. Any other information that the applicant may like to mention:

(A)

- i. Life Member, Assam Science Society, Hailakandi Branch
- ii. Secretary, Assam Science Society, Hailakandi Branch, 2009-2015, 2019-2021
- iii. Member, Rotary Club of Hailakandi (for 2 years)
- iv. Life Member, Heart Care Society, Silchar
- v. District Co-ordinator, National Children's Science Congress, Hailakandi, 2009-2013.
- vi. The Chairman, Rotaract Club, Hailakandi,(2011-2012)
- vii. Life Member of North Eastern academy of Physics (PANE)
- viii. Member, Academic committee of I. K. Girls H. S. School, Hailakandi
- ix. Member of TET verification team in three different occasions.
- x. Vice President, Assam Science Society, Hailakandi Branch, (2014-16)(2022-2024)
- xi. External evaluator in GUNATSAV Program on 01.11.2018-03.11.2018, 2021, 2022

(B)

- i. H.S. and T.D.C. External Practical Examiner (pass & honours)
- ii. Internal Practical examiner (2000-2015)
- iii. Paper examiner (AHSEC/ Assam University, Silchar)
- iv. Tabulator, H.S.1st Year (Sc.), 2011/2018/2023
- v. Reviewer of journal (Taylor & Francis group of publications)
- vi. The Judge, Science Program, Aryabhata Science Centre, Hailakandi
- vii. Paper setter (Assam University, Silchar)
- viii. Assistant Zonal Officer, H.S. 2nd year zone, 2012
- x. In-charge Athletic, Program sponsored by Chief Minister, Assam
- xi. Rapporteur in a UGC sponsored National seminar on 20th and 21st Feb. 2012
- xiii. Venue in-charge, TET exam. 2014, Hailakandi Junior Science College (01.02.2014)
- xiv. Moderator (AUS) (06.03.2014)
- xv. Organizing secretary of UGC sponsored National workshop (23rd Jan, 2014)
- xvi. External Practical examiner, 14, 15, 16 march, 2014, AHSEC, Assam
- xvii. Editor of the Proceeding (ISBN) of the UGC sponsored National seminar.
- xviii. External Examiner , 21.11.14 – 13.12.14 , R.K. Nagar College, odd sem. Exam AUS
- xix. External Practical examiner (10.04.15, 11.04.15) in G. C. College, Paper PSHH 204

- xx. Master Resource Person , State Level Guide Teacher Training workshop, NCSC-2015*
- xxi. Judges of 3 days district level science exhibition – Bigyan Jeuti -2015 , RAMSA*
- xxii. Judges of District level Science model completion of Aryabhata Science Centre Hailakandi, 2015*
- xxiii. External pract.l examiner in Karimganj College & G. C. College in Odd Sem Pract. Exam. 2016*
- xxxiv. Member of construction committee, S. S. College, Hailakandi*
- xxv. Member of purchase committee, S. S. College, Hailakandi*
- xxvi. Member of G.B. S. S. College , Hailakandi (2021-22)*
- xxxvii. Co-ordinator, NIRF , S. S. College, Hailakandi*
- xxxviii. VC Nominee of GB, in GC Paul College of Education 2024*

**PART –B : ACADEMIC PERFORMANCE INDICATORS
CATEGORY –III: RESEARCH AND ACADEMIC CONTRIBUTIONS**

A) Research paper(s) published in journal:

Sl . No.	Title with page No.	Journal	ISSN No.	Whether peer reviewed Impact factor (if any)	No. of Co- autho r(s)	Whether you are the main author	AP I Sco re
1	VIBRATIONAL FREQUENCIES OF BUCKMINISTERFULLERENE : AN ALGEBRAIC STUDY /273-279, 2012	SPECTROSCOPY LETTERS / TAYLOR AND FRANCIS	1532-2289 [WEB]	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=1.179	05	YES	10.5
2	A STUDY OF VIBRATIONAL SPECTRA OF FULLERENE C70 AND C80: AN ALGEBRAIC APPROACH/ 407-412,2011	ACTA PHYSICA POLONICA A	1898-794X [WEB]	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=0.577	05	YES	7.0
3	A SPECTROSCOPY ANALYSIS OF STRETCHING VIBRATIONAL IR SPECTRA OF POLYATOMIC MOLECULES : A REVIEW/ 321-323, 2013	QUANTUM MATTER	2164-7615 [PRINT]	PEER REVIEWED INTERNATIONAL JOURNAL IF=NIL	05	NO	3.0
4	APPLICATION OF U(2) ALGEBRAIC MODEL IN THE STUDY OF STRETCHING VIBRATIONAL SPECTRA OF LARGE FULLERENES C180 AND C240/ 725-732, 2013	FULLERENES, NANOTUBES AND CARBON NANOSTRUCTURES	1536-383X	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=1.869	04	YES	10.5
5	VIBRATIONAL IR SPECTROSCOPY OF SMALL CARBON CLUSTERS/ 821-824, 2013	JOURNAL OF COMPUTATIONAL AND THEORETICAL NANOSCIENCE	1546-1955	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=0.488	03	YES	7.0
6	SPECTROSCOPIC ANALYSIS OF C20 ISOMERS BY THE U(2) ALGEBRAIC MODEL/ 403-410, 2013	FULLERENES, NANOTUBES AND CARBON NANOSTRUCTURES	1536-383X	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=1.869	04	YES	10.5
7	INFRA-RED ACTIVE VIBRATIONAL MODES OF FULLERENE C70/ 429-435, 2013	FULLERENES, NANOTUBES AND CARBON NANOSTRUCTURES	1536-383X	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=1.869	04	CORRESPONDING AUTHOR	10.5
8	APPLICATION OF U(2) ALGEBRAIC MODEL IN THE STUDY OF STRETCHING VIBRATIONAL SPECTRA OF C50 AND C84 FULLERENES/ 49-55, 2011	ARMENIAN JOURNAL OF PHYSICS	1829-1171	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=0.198	05	NO	3.0
9	VIBRATIONAL IR ACTIVE SPECTRA OF COPPER(II) CHLORIDE AND COBALT (II) CHLORIDE : A COMBINED EXPERIMENTAL AND THEORETICAL LIE	JOURNAL OF COMPUTATIONAL AND THEORETICAL NANOSCIENCE	1546-1955	PEER REVIEWED INTERNATIONAL JOURNAL/ IF= 0.488	04	CORRESPONDING AUTHOR	7.0

	ALGEBRAIC STUDY/ 776-780, 2014						
10	STRETCHING VIBRATIONAL IR ACTIVE SPECTRA OF CARBON FULLERENES/ 861-868, 2013	FULLERENES, NANOTUBES AND CARBON NANOSTRUCTURES	1536-383X	PEER REVIEWED INTERNATIONAL JOURNAL/= IF=1.869	04	YES	10.5
11	U(2) LIE ALGEBRAIC STUDY OF VIBRATIONAL SPECTRA OF FULLERENE C80 AND ITS EPOXIDES C80-O/ 500-504, 2012	UKRANIAN JOURNAL OF PHYSICS	2071-0194 [WEB]	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=0.471	06	YES	7.0
12	VIBRATIONAL SPECTRAL ANALYSIS OF SOME ISOTOPIC SPECIES OF HYDROGEN SULPHIDE, HYDROGEN SELENIDE AND WATER USING THE U(4) ALGEBRAIC MODEL/ 391-400,2016	NISCAIR-CSIR, INDIA	0975-1041	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=0.923	07	YES	7.0
13	VIBRATIONAL IR ACTIVE SPECTRA OF STABLE ISOMERS OF FULLERENE C80/ 914-920, 2014	FULLERENES, NANOTUBES AND CARBON NANOSTRUCTURES	1536-383X	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=1.869	04	YES	10.5
14	A STUDY OF THE STRETCHING VIBRATIONAL SPECTROSCOPY OF C1200 AND C12002 BY U(2) LIE ALGEBRA/ 85-92, 2013	JOURNAL OF THE SERBIAN CHEMICAL SOCIETY	1820-7421	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=1.240	03	YES	10.5
15	VIBRATIONAL SPECTRA OF COPPER OXIDES – SYNTHESIS ,CHARACTERISATION AND THEORETICAL RECONSIDERATION BY LIE ALGEBRA/ 1806-1811	JOURNAL OF COMPUTATIONAL AND THEIRETICAL NANOSCIENCE	1546-1955	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=0.488	04	CORRESPONDING AUTHOR	7.0
16	VIBRATIONAL IR SPECTRA OF C84 ISOMERS: AN ALGEBRAIC APPROACH/ 439-443, 2014	JOURNAL OF COMPUTATIONAL AND THEIRETICAL NANOSCIENCE	1546-1955	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=0.488	04	YES	7.0
17	THE VIBRATIONAL SPECTRA OF CARBON DIOXIDE AND NITROUS OXIDE: A LIE ALGEBRAIC STUDY/ 560-565, 2018	CANADIAN JOURNAL OF PHYSICS	0008-4204 [WEB]	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=1.240	04	CORRESPONDING AUTHOR	10.5
18	A COMPARATIVE STUDY OF THE VIBRATIONAL SPECTRA OF HCN IN EXACT VIBRON MODEL AND IN MEAN FIELD APPROXIMATION/ 130-135, 2016	CANADIAN JOURNAL OF PHYSICS	0008-4204 [WEB]	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=1.240	03	CORRESPONDING AUTHOR	10.5
19	A LIE ALGEBRAIC STUDY OF THE FUNDAMENTAL VIBRATIONAL SPECTRA OF LINEAR TRIATOMIC MOLECULES OCS	QUANTUM MATTER	2164-7615 [PRINT]	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=NIL	03	CORRESPONDING AUTHOR	3.5

	AND CLCN/ 617-621, 2016						
20	LIE ALGEBRAIC STUDY OF THE INFRA RED ACTIVE SPECTRA OF SINGLE LAYER GRAPHENE/ 214-224, 2014	POLYCYCLIC AROMATIC COMPOUNDS	1563- 5333	PEER REVIEWED INTERNATI ONAL JOURNAL/ IF=3.744	08	CORRESPO NDING AUTHOR	14.0
21	SUCCESSFUL APPLICATION OF LIE ALGEBRAIC MODEL TO ANALYSE THE VIBRATIONAL SPECTRA OF FLUOROBENZENE/ 135-142, 2014	POLYCYCLIC AROMATIC COMPOUNDS	1563- 5333	PEER REVIEWED INTERNATI ONAL JOURNAL/ IF=3.744	04	CORRESPO NDING AUTHOR	14.0
22	A SPECTROSCOPIC ANALYSIS OF VIBRATIONAL IR SPECTRA OF POLYMER PHASES OF FULLERENE C70C8H8 BY LIE ALGEBRAIC TECHNIQUE/ 1024-1028	OPTOELECTRONIC S AND ADVANCED MATERIALS – RAPID COMMUNICATION S	1842- 6573	PEER REVIEWED INTERNATI ONAL JOURNAL/ IF=0.441	03	NO	3.0
23	NEW WAY OF LOOKING AT SCROEDINGER EQUATION/426-429, 2017	JOURNAL OF ADVANCED PHYSICS	2168- 1996	PEER REVIEWED INTERNATI ONAL JOURNAL/ IF=NIL	05	CORRESPO NDING AUTHOR	3.5
24	AN ALGEBRAIC ANALYSIS OF VIBRATIONAL IR SPECTRA OF FULLERENE DIMER [C702]2+ BY USING U(2) LIE ALGEBRA/ 313-316, 2017	JOURNAL OF ADVANCED PHYSICS	2168- 1996	PEER REVIEWED INTERNATI ONAL JOURNAL/ IF=NIL	02	CORRESPO NDING AUTHOR	3.5
25	VIBRATIONAL IR ACTIVE FREQUENCIES OF C36: AN ALGEBRAIC APPROACH/ 661-664, 2017	UKRANIAN JOURNAL OF PHYSICS	2071- 0194 [WEB]	PEER REVIEWED INTERNATI ONAL JOURNAL/ IF=0.471	03	CORRESPO NDING AUTHOR	7.0
26	VIBRATIONAL IR SPECTRA OF SOLID CARBON MONOXIDE/ 146-150, 2017	UKRANIAN JOURNAL OF PHYSICS	2071- 0194 [WEB]	PEER REVIEWED INTERNATI ONAL JOURNAL/IF =0.471	03	CORRESPO NDING AUTHOR	7.0
27	THEORETICAL VIBRATIONAL SPECTRA OF CARBON FULLERENES/ 318-328, 2016	POLYCYCLIC AROMATIC COMPOUNDS	1563- 5333	PEER REVIEWED INTERNATI ONAL JOURNAL/ IF=3.744	01	YES	20
28	A STUDY OF THE STRETCHING VIBRATIONAL SPECTRA OF FULLERENE DIMERS C60O AND C60O2 BY U(2) LIE ALGEBRA/ JULY-AUGUST, 2016	OPTOELECTRONIC S AND ADVANCED MATERIALS – RAPID COMMUNICATION S	1842- 6573	PEER REVIEWED INTERNATI ONAL JOURNAL/ IF=0.441	01	YES	10
29	CONFLUENT HYPERGEOMETRIC FUNCTIONS AND STATES OF SU(1,1)/ 521-523, 2016	QUANTUM MATTER	2164- 7615 [PRINT]	PEER REVIEWED INTERNATI ONAL JOURNAL/ IF=NIL	04	CORRESPO NDING AUTHOR	3.5
30	INFRARED ACTIVE SPECTROSCOPY OF CARBON NANOTUBES: A LIE ALGEBRAIC STUDY/ 853-860, 2014	FULLERENES, NANOTUBES AND CARBON NANOSTRUCTURE S	1536- 383X	PEER REVIEWED INTERNATI ONAL JOURNAL/ IF=1.869	03	YES	10.5

31	INTRAMOLECULAR VIBRATIONAL SPECTRA OF BENZENE AND ITS DERIVATIVES IN CC, CH AND CD LOCAL MODE INTERACTION/ 442-447, 2014	QUANTUM MATTER	2164-7615 [PRINT]	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=NIL	04	CORRESPONDING AUTHOR	3.5
32	THE VIBRATIONAL SPECTRA OF MONOMER AND DIMER OF BENZENE: AN ALGEBRAIC APPROACH/ 388-396, 2014	POLYCYCLIC AROMATIC COMPOUNDS	1563-5333	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=3.744	04	CORRESPONDING AUTHOR	14.0
33	A COMPARATIVE STUDY OF VIBRATIONAL SPECTRA OF FULLERENES C60, C70, C80 AND C84 USING LIE ALGEBRA/ 2011	THE AFRICAN REVIEW OF PHYSICS	2223-6589	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=NIL	06	YES	3.5
34	A COMPARATIVE SPECTROSCOPIC STUDY OF ETHYLENE AND BENZENE BY USING U(2) LIE ALGEBRA/ 42-50, 2011	ARCHIVES OF APPLIED SCIENCE RESEARCH	0975-508X CODEN(USA)	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=NIL	04	YES	3.5
35	STUDY OF STRETCHING VIBRATIONS OF FULLERENE C70 AND C700 BY LIE ALGEBRAIC TECHNIQUE/ 2011	THE AFRICAN REVIEW OF PHYSICS	2223-6589	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=NIL	05	YES	3.5
36	AN ALGEBRAIC APPROACH TO STUDY THE VIBRATIONAL SPECTRA OF FULLERENE C80/ 58-61, 2011	ASSAM UNIVERSITY JOURNAL OF SCIENCE AND TECHNOLOGY	0975-2773	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=NIL	07	YES	3.5
37	A STUDY OF THE VIBRATIONAL SPECTRA OF C70 USING LIE ALGEBRAIC APPROACH/ 84-88, 2011	ASSAM UNIVERSITY JOURNAL OF SCIENCE AND TECHNOLOGY	0975-2773	PEER REVIEWED INTERNATIONAL JOURNAL /IF= NIL	06	NO	1.5
38	IR ACTIVE SPECTROSCOPY OF FULLERENE C78 ISOMERS/ 116-124, 2011	ARCHIVES OF PHYSICS RESEARCH	0976-0970 CODEN(USA)	PEER REVIEWED INTERNATIONAL JOURNAL/ IF=NIL	04	YES	3.5
39	A LIE ALGEBRAIC APPROACH TO STUDY THE VIBRATIONAL SPECTRA OF C80 AND ITS EPOXIDE C80-O/ 197-204	PURSUIITS	0976-4593	PEER REVIEWED/ IF=NIL	04	YES	3.5
40	AN ALTERNATE MATHEMATICAL ANALYSIS OF VIBRATIONAL SPECTRA OF FULLERENE C706- BY LIE ALGEBRAIC TECHNIQUE/1-5	PURSUIITS	0976-4593	PEER REVIEWED/ IF=NIL	02	NO	1.5
41	AN ALGEBRAIC STUDY OF VIBRATIONAL IR SPECTRA OF FULLERENE C84/ 131-138	PURSUIITS	0976-4593	PEER REVIEWED/ IF=NIL	03	YES	3.5
42	AN INTRODUCTION TO	PURSUIITS	0976-4593	PEER REVIEWED/	01	YES	3.5

	COSMOLOGICAL PERTURBATION IN STRUCTURE FORMATION/ 115-125			IF=NIL			
43	VIBRATIONAL SPECTRA ANALYSIS OF SOME ISOTOPIC SPECIES .....U(4) ALGEBRAIC MODEL	INDIAN JOURNAL OF PURE AND APPLIED PHYSICS	0019-5596	PEER REVIED/ IF =0.846	07	YES	07
44	ELUCIDATING THE VIBRATIONAL SPECTRA USING THE $u(2)$ LIE ALGEBRAIC FRAMEWORK.....A S MODEL SYSTEM	JOURNAL OF MOLECULAR SPECTROSCOPY/E LSEVIER	0022-2852	PEER REVIEWED INTERNATI ONAL JOURNAL	5	CORRESPONDING AUTHOR	07
45	COMPUTATION AND THEORETICAL ANALYSIS OF VIBRATIONAL MODES .....ALGEBRAIC FRAMEWORK	THEORETICAL CHEMISTRY ACCOUNTS/SPRINGER	1432-2234	PEER REVIEWED INTERNATI ONAL JOURNAL	2	CORRESPONDING AUTHOR	07

Full paper(s) in conference proceedings (abstract not to be included)

Sl. No.	Title with page No.	Details of Conference Publication	No. of Co-authors	Whether you are the main author	API Score
1	LIE ALGEBRAIC APPROACH.....OF C36	PROCEEDINGS OF NATIONAL SEMINAR ON RECENT TRENDS IN BASIC SCIENCE RESEARCHES	02	YES	03
2	A COMPARATIVE STUDY OF VIBRATIONAL SPECTRA OF C70 AND C80 USING LIE ALGEBRAIC METHOD	PROCEEDING OF CONTEMPORARY TRENDS OF RESEARCH IN PHYSICAL SCIENCES, 2012, DEPT. OF PHYSICS, G. C. COLLEGE ISBN: 978-81-923616-0-4/ 2012, PAGE 80-85	04	YES	03
03	VIBRATIONAL SPECTROSCOPY OF SP6.....LIE ALGEBRAIC APPROACH	PROCEEDING OF CONTEMPORARY TRENDS OF RESEARCH IN PHYSICAL SCIENCES, 2012, DEPT. OF PHYSICS, G. C. COLLEGE ISBN: 978-81-923616-0-4/ 2012, PAGE 86-91	04	NO	03

B) Research Publications (book):

Sl. No.	Title with page nos.	Book title , Editor and publisher	ISSN/ISBN No.	Whether peer reviewed	No. of co-authors	Whether you are the main author	API Score

Research Publications chapter in books , other than refereed journal articles

Sl. No.	Title with page no.	Type of Book and authorship	Publisher and ISSN/ISBN No.	Whether peer reviewed	No. of co-authors	Whether you are the main author	API Score
1	LIE ALGEBRA: A SUBSTANTIAL .....POLYATOMIC MOLECULES	ISBN BOOK HARD BINDING	ASSAM SC. SOCIETY, HKD/ 978-81-953494-5-6	YES	02	NO	05
2	AN ALGEBRAIC APPROACH TO VIBRATIONAL SPECTRA OF CARBON NANOTUBES	DO	JOURNAL OF SCIENCE FORUM/ KARIMGANJ COLLEGE, ASSAM	YES	05	NO	05

III (C) RESEARCH PROJECTS

(i) Sponsored Projects carried out / ongoing:

Sl. No.	Title	Agency	Period	Grant /Amount mobilized (in lakh)	API Score
1	PATH INTEGRAL APPROACH TO QUANTUM THEORY OF GRAVITY , IS RELATED TO STRING THEORY	UGC, NERO [UGC LEETER NO. F.5-39/2005-06/MRP/NERO/2494, DATED 16.01.2007]	2005-2007	75000/-	05
2	LIE ALGRBRA.....EPOXIDES	UGC NERO [UGC LETTER NO. F.5-174/2011-12/MRP/NERO/10653, DATED 29.11.2011]	2011-2012	200000/-	05
3	VIBRATIONAL SPECTRA ANALYSIS..... LIE ALGEBRAIC METHOD	UGC NERO [UGC LETTER NO. F.5-389/2014-15/(MRP/NERO)/3732, DATED 24.03.2015]	2014-2015	200000/-	05

(ii) Consultancy Projects carried out / ongoing

Sl. No.	Title	Agency	Period	Grant /Amount mobilized (in lakh)	Whether policy document/patent as outcome	API Score
1.	FINISHING SCHOOL	RUSA GOVT OF INDIA	2018-2021	750000/-	LECTURE AND DEMONSTRATION	03
2	OUT REACHED PROGRAM AT RURAL INSTITUION	ASTEC, GHY	2019	145000/-	HANDS ON TRAINING PROGRAM	03

(iii) Completed Projects : Quality Evaluation

Sl. No.	Title	Agency	Period	Grant /Amount mobilized (in lakh)	Whether policy document/patent as outcome	API Score
1	PATH INTEGRAL APPROACH TO QUANTUM THEORY OF GRAVITY , IS RELATED TO STRING THEORY	UGC NERO	2005-2007	75000/-	-----	Nil
2	LIE ALGRBRA.....EPOXIDES	UGC NERO	2011-2012	200000/-	INTERNATION AL PAPER PUBLICATION	Nil
3	VIBRATIONAL SPECTRA	UGC NERO	2014-2015	200000/-	INTERNATION AL PAPER	Nil

	ANALYSIS..... LIE ALGEBRAIC METHOD				PUBLICATION	
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(iv) Projects outcome /Outputs

Sl. No.	Title	Agency	Period	Grant /Amount mobilized (in lakh)	Whether policy document/patent as outcome	API Score
1	IR ACTIVE SPECTROSCOPY A LIE ALGEBRAIC STUDY	UGC NERO	2014-2015	200000/-	RESEARCH PAPER PUBLISHED IN THE JOURNAL FULLERENES, NANOTUBES AND CARBON NANO STRUCTURES	
2	A LIE ALGEBRAIC APPROACH.....EPOXIDES	UGC NERO	2010	200000/-	RESEARCH PAPER PUBLISHED IN PEER REVIEWED JOURNAL PURSUIT	
3	AN INTRODUCTION TO COSMOLOGICAL PURTURBATION IN STRUCTURE FORMATION	UGC NERO	2007	75000/-	RESEARCH PAPER PUBLISHED IN PEER REVIEWED JOURNAL PURSUIT	

(v) ISBN book publication as the Editors of the book

SL NO.	Name of the Book(s)	ISBN No.	International / National/ State	Publishing Year	API
1	EXCELSIOR	978-81-933690-4-3	NATIONAL	2019	08
2	EMERGING AREAS OF RESEARCH AND DEVELOPMENT IN CHEMICAL AND PHYSICAL SCIENCES IN N. E. INDIA	978-81-908204-3-3	NATIONAL	2013	08
3	PROCEEDINGS RECENT TRENDS IN BASIC SCIENCE RESEARCHES	978-81-933690-0-5	NATIONAL	2017	08
4	NATIONAL SEMINAR ON RECENT TRENDS IN BASIC SCIENCE RESEARCHES IN NORTH EAST INDIA: ABSTRACT	978-81-953494-6-3	NATIONAL	2021	08
5	ON RECENT TRENDS IN BASIC SCIENCE RESEARCHES IN NORTH EAST INDIA (Vol. 1)	978-81-953494-5-6	NATIONAL	October -2021	08
6	ON RECENT TRENDS IN BASIC SCIENCE RESEARCHES IN NORTH EAST INDIA (Vol. 2) (E-BOOK)	978-81-953494-5-6	NATIONAL	November-2021	08
BOOK PUBLISHED AS AN EDITOR WITHOUT ISBN NO.					
1	SOUVENIR EMERGING AREAS OF RESEARCH.....NORTH EAST INDIA	.....	NATIONAL	16 TH TO 18 TH OCTOBER, 2012	NIL
2	ABSTRACT EMERGING AREAS OF RESEARCH.....NORTH EAST INDIA	.....	NATIONAL	16 TH TO 18 TH OCTOBER, 2012	NIL
3	EXCELSIOR	.....	REGIONAL	28 TH SEPT.	NIL

	NCSC-2014			2014	
4	ABSTRACT RECENT TRENS IN BASIC SCIENCE RESEARCHES	.....	NATIONAL	21/09/2017 – 23/09/2017	NIL

III(D) RESEARCH / PROJECT GUIDANCE:

Sl. No.	Number of enrolled	Thesis / PROJECT submitted	Degree awarded/	TITLE	API Score
1	nil	nil	Nil	nil	NIL
SCIENCE PROJECT IN CONNECTION WITH NCSC, SPONSORED BY DST, GOVT. OF INDIA					
1	01	PROJECT SUBMITTED	QUALIFIED FOR STATE LEVEL MEET	TEMERATURE AND ITS EFFECT	NIL

III (E) and III(E) (i) Refresher courses, Training courses, Teaching learning evaluation technology programs, soft skill development programs, faculty development programs

Sl. No.	Program	Duration	Organised by	API Score
1	BASICS OF QUANTUM MECHANICS	15/08/2019 TO 18/11/2019	CENTRE FOR CONTINUING EDUCATION, INDIAN INSTITUTE OF TECHNOLOGY, KANPUR	
2	BASICS OF SPECIAL THEORY OF RELATIVITY	18/12/2018 TO 08/03/2019	CENTRE FOR CONTINUING EDUCATION, INDIAN INSTITUTE OF TECHNOLOGY, KANPUR	
3	IUCAA TLC 7 DAY WORKSHOP ON ASTRONOMY AND ASTROPHYSICS	22/01/2020 TO 28/01/2020	DEPT. OF PHYSICS, S S COLLEGE, HAILAKANDI	
4	SHORT TERM COURSE ON COMPUTATIONAL PHYSICS	12/05/2020 TO 18/05/2020	BODOLAND UNIVERSITY, BODOLAND	
5	LEARNING PHYSICS THROUGH SIMPLE EXPERIMENTS	02/04/2020 TO 10/06/2020	CENTRE FOR CONTINUING EDUCATION, INDIAN INSTITUTE OF TECHNOLOGY, KANPUR	
6	ADVANCED COURSE ON SPECIAL THEORY OF RELATIVITY	26/01/2020 TO 19/05/2020	CENTRE FOR CONTINUING EDUCATION, INDIAN INSTITUTE OF TECHNOLOGY, KANPUR	
7	RECENT TRENDS OF RESEARCH AND ITS APPLICATIONS IN PHYSICAL SCIENCES	21/01/2014 TO 27/01/2014	DEPT. OF PHYSICS AND CHEMISTRY, S S COLLEGE, HAILAKANDI	
8	WINTER SCHOOL ON GRAVITATION AND COSMOLOGY	05/01/2015 TO 11/01/2015	DEPT. OF PHYSICS, ASSAM UNIVVERSITY, SILCHAR	
9	EXPOSURE TO SCIENTIFIC SOFTWARE AND TOOLS.....PHYSICAL SCIENCES	25/07/2016 TO 31/07/2016	DEPT. OF PHYSICS, KARIMGANJ COLLEGE, ASSAM	
10	RECENT DEVELOPMENT ON NANOSCIENCE AND TECHNOLOGY	10/09/2013 TO 30/09/2013	UGC-ASC, JADAVPUR UNIVERSITY, KOLKATA	
11	CLASSICAL ELECTROMAGNETISM -I	15/08/2020 TO 13/12/2020	CENTRE FOR CONTINUING EDUCATION, INDIAN INSTITUTE OF TECHNOLOGY, KANPUR	
12	PHYSICS AND CHEMISTRY OF ADVANCED MATERIAL	15/11/2011 TO 05/12/2011	UGC-ASC NORTH BENGAL UNIVERSITY, W.B.	
13	UGC SPONSORED	01/02/2005 TO	JAMIA MILLIA ISLAMIA,	

	ORIENTATION PROGRAM	01/03/2005	NEW DELHI	
14	PHYSICS	03/12/2002 TO 23/12/2002	UGC RC , ASSAM UNIVERSITY, SILCHAR	
15	CLASSICAL MECHANICS I	26/01/2021 TO 25/04/2021	CENTRE FOR CONTINUING EDUCATION, INDIAN INSTITUTE OF TECHNOLOGY, KANPUR	
16	SIMPLE SANSKRIT SPEAKING	23/04/2002- 23/05/2002	UGC, NEW DELHI	

III (E) (ii) Presentation of papers in conference / Seminars /Workshops etc.

Sl. No	Title of the paper presented	Title of the conf./Seminar	Organised by	Whether international/ National/ State/ regional/University /College level	API Score
1	A LIE ALGEBRAIC STUDY OF CARBON CLUSTERS	FOURTH CONFERENCE ON PHYSICS RESEARCH IN NORTH EAST	DEPT. OF PHYSICS, G. C COLLEGE, SILCHAR	STATE LEVEL	02
2	ROLE OF SCIENTISTS IN FIRST AND SECOND WORLD WARS	UGC SPONSORED NATIONAL SEMINAR ON 100 YEARS OF FIRST WORLD WAR, THE POLITICS BEHIND AND AFTER	DEPT. OF POL. SCIENCE, S S COLLEGE, HAILAKANDI	NATIONAL LEVEL	03
3	TACHYON	SYMPOSIUM ON ASTROPHYSICS AND SPECTROSCOPIC AND PHOTOMETRIC DATA	DEPT. OF PHYSICS, ASSAM UNIVERSITY, SILCHAR	STATE LEVEL	02
4	A REVIEW ON IMPORTANCE OF BIODIVERSITY IN NATURAL WORLD	UGC SPONSORED NATIONAL SEMINAR ON BIODIVERSITY CONSERVATION AND ITS FUTURE SCENARIO	DEPT. OF BOTANY, S S COLLEGE, HAILAKANDI	NATIONAL LEVEL	03
5	LIE ALGEBRAIC APPROACH.....FREQUENCIES OF C36	UGC SPONSORED NATIONAL SEMINAR ON RECENT TRENDS IN BASIC SCIENCE RESEARCH	DEPT. OF PHYSICS AND CHEMISTRY, S S COLLEGE, HAILAKANDI	NATIONAL LEVEL	03
6	A REVIEW ON THE NOVEL.....BIO-MOLECULES BY LIE ALGEBRAIC TECHNIQUE	UGC SPONSORED NATIONAL SEMINAR ON BIOTECHNOLOGY VIS-A -VIS RURAL DEVELOPMENT	DEPT. OF BOTANY, S S COLLEGE, HAILAKANDI	NATIONAL LEVEL	03
7	LIE ALGEBRA: A PROMISING TOOL.....FULLERENES	UGC SPONSORED NATIONAL SEMINAR ON EMERGING AREAS OF RESEARCH AND DEVELOPMENT IN CHEMICAL AND PHYSICAL SCIENCES IN N E INDIA	DEPT. OF CHEMISTRY AND PHYSICS, S S COLLEGE, HAILAKANDI	NATIONAL LEVEL	03
8	INFRARED SPECTROSCOPY OF SINGLE WALLED GRAPHENE : AN ALGEBRAIC APPROACH	INTERNATIONAL CONF.ON EXPLORING SUB-REGIONAL CO-OPERATION	ASSAM UNIVERSITY, SILCHAR	INTERNATIONAL LEVEL	05

		IN THE CONTEXT OF INDIA- BANGLADESH RELATIONS			
9	SPECTROSCOPIC ANALYSIS OF .....LIE ALGEBRAIC TECHNIQUE	UGC SPONSORED NATIONAL SEMINAR ON ADVANCES IN RESEARCH IN PHYSICAL SCIENCES	CACHAR COLLEGE, SILCHAR	NATIONAL LEVEL	03
10	COMETARY DUST PARTICLES	IUCAA SPONSORED INTRODUCTOR Y SCHOOL IN ASTRONOMY AND ASTROPHYSICS, 2013	SRIKISHAN SARDA COLLEGE, HAILAKANDI	NATIONAL LEVEL	03
11	AN APPLICATION OF SU(1,1) LIE ......DIFFERENT POTENTIALS	NATIONAL SEMINAR ON FRONTIERS OF RESEARCH IN PHYSICAL SCIENCES	DEPT. OF PHYSICS, KARIMGANJ COLLEGE, ASSAM	NATIONAL LEVEL	03
12	AN ALGEBRAIC APPROACH .....SAME ENERGY	NATIONAL CONFERENCE ON TRENDS IN MATHEMATICA L SCIENCE RESEARCH	DEPT. OF MATHEMATIC S, ASSAM UNIVERSITY, SILCHAR	NATIONAL LEVEL	03
13	VIBRATIONAL SPECTROSCOPY OF FULLERENE C80	NATIONAL SEMINAR ON FRONTIERS OF RESEARCH IN PHYSICS	DEPT. OF PHYSICS, KARIMGANJ COLLEGE, ASSAM	NATIONAL LEVEL	03
14	A STUDY OF VIBRATIONAL ALGEBRAIC APPROACH	UGC SPONSORED NATIONAL SEMINAR ON CONTEMPORAR Y TRENDS OF RESEARCH IN PHYSICAL SCIENCES	DEPT. OF PHYSICS, G. C COLLEGE, SILCHAR	NATIONAL LEVEL	03
15	A STUDY OF ALGEBRAIC APPROACH	NATIONAL SEMINAR ON CURRENT TRENDS IN CONDENSED MATTER PHYSICS	DEPT. OF PHYSICS, ASSAM UNIVERSITY, SILCHAR	NATIONAL LEVEL	03
16	PATH INTEGRAL APPROACH.....STRING THEORY	SEMINAR ON CONTEMPORAR Y AREAS IN PHYSICAL AND LIFE SCIENCES	IQAC KARIMGANJ COLLEGE, ASSAM	NATIONAL LEVEL	03
17	POPULATION AND WATER A COMPARATIVE ANALYSIS	UGC SPONSORED NATIONAL SEMINAR ON PROBLEMS AND PROSPECTS OF DEVELOPMENT IN THE N EASTERN REGION	RESEARCH AND PUBLICATION CELL,IQAC S S COLLEGE, HAILAKANDI	NATIONAL LEVEL	03
18	LIE ALGRBRA: A SUBSTANTIAL TOOL..... POLYATOMIC MOLECULES	ASTEC SPONSORED NATIONAL SEMINAR ON RECENT TRENDS IN BASIC SCIENCE RESEARCHES IN N.E. INDIA	ASSAM SCIENCE SOCIETY, HAILAKANDI	NATIONAL LEVEL	03
19	REMEDIES OF PROBLEMS N. EASTERN REGION	UGC SPONSORED NATIONAL SEMINAR	IQAC , S S COLLEGE , HAILAKANDI	NATIONAL LEVEL	03

Creation of ICT mediated Teaching Learning pedagogy and development of new and innovative courses

3(b) Design of new curricula and courses

Sl. No.	Assignment	Name of the New Courses	Main agency	period	API Score
1	Member of BUGS	TDC New Course of Physics	Dept. Of Physics, Assam University, Silchar	2016 - 2019 2024-TILL DATE	02

Participation in Conf. / Seminar / Workshop etc.

(International 7 /each, National 6/each, regional /state 5/each, local 3/each)

Sl No.	Title of the Conf. / Seminar	Organised by	Whether International/ National/ State etc.	API Score
1	VIRTUAL PHYSICS LAB	MALLA REDDY INSTITUTE OF ENGINEERING AND TECHNOLOGY	NATIONAL	06
2	2 DAYS TRAINING PROGRAM FOR MOTIVATORS OF VOLUNTARY BLOOD DONARS	ASSAM STATE AIDS CONTROL SOCIETY	STATE	05
3	12 TH NATIONAL CHILDREN'S SCIENCE CONGRESS-2004	DISTRICT LEVEL PROJECT GUIDE TRAINING WORKSHOP, ASTEC, GHY	REGIONAL	05
4	ZONAL ORIENTATION WORKSHOP OF RESOURCE PERSONS FOR NCSC 2010	WORKSHOP OF RESOURCE PERSONS FOR NCSC 2010, DIST. ORGANISING COMMITTEE CACHAR	REGIONAL	05
5	PROGRAM ON ASTRO-PARTICLE PHYSICS AND STRUCTURAL GENOMICS AND PROTEOMICS	FRONTIER LECTURE PROGRAM, SINP AND IQAC S S COLLEGE	REGIONAL	05
5	NATIONAL SEMINAR ON DUSTS IN ASTROPHYSICS	DEPT. OF PHYSICS, AUS	NATIONAL	06
6	TEACHERS TRAINING WORKSHOP ON SCIENCE AND MATH	ASSAM SCIENCE SOCIETY, GHY	REGIONAL	05
7	HIGH SCHOOL SCIENCE TEACHERS TRAINING CAMP	ASSAM SCIENCE SOCIETY AND MHRD	REGIONAL	05
8	NATIONAL SEMINAR ON RECENT PROGRESSES IN PHYSICAL SCIENCES	IQAC, KARIMGANJ COLLEGE	NATIONAL	06
9	19 TH NATIONAL CHILDREN'S SCIENCE CONGRESS-2011	ASTEC, GHY	STATE	05
10	19 TH NCSC NATIONAL LEVEL MEET	DST, GOVT OF INDIA	NATIONAL	06
11	ACQUAINTANCE PROGRAM	DEPT OF PHYSICS, NIT SILCHAR	STATE	05

12	DISTRICT NSCS - 2010	ASTEC AND DST GHY	REGIONAL	05
13	DISTRICT NSCS - 2011	ASTEC AND DST GHY	REGIONAL	05
14	UGC NATIONAL SEMINAR	RAMKRISHNA NAGAR COLLEGE, KARIMGANJ	NATIONAL	06
15	NATIONAL LEVEL NCSC 2009	DST GOVT OF INDIA	NATIONAL	06
16	STATE LEVEL NCSC 2010	ASTEC- GHY	STATE	05
17	STATE LEVEL NCSC 2009	ASTEC -GHY	STATE	05
18	STATE LEVEL NCSC 2015	ASTEC -GHY	STATE	05
20	DISTRICT LEVEL NCSC 2015	ASTEC-GHY	REGIONAL	05
21	2 DAY WORKSHOP ON BIODIVERSITY AND CLIMATE CHANGE	DEPT. OF BOTANY , S S COLLEGE, ASTEC-GHY	REGIONAL	05
22	DIST. LEVEL NCSC 2014	ASTEC-GHY	REGIONAL	05
23	STATE LEVEL NCSC 2016	ASTEC -GHY	STATE	05
24	STATE LEVEL NCSC 2013	ASTEC -GHY	STATE	05
25	NATIONAL LEVEL NCSC 2014	DST GOVT OF INDIA	NATIONAL	06
26	UGC NATIONAL SEMINAR ON BANGLA BANAN	DEPT. OF BENGALI, S S COLLEGE	NATIONAL	06
27	DBT SPONSORED 3 DAY HANDS ON TRAINING PROGRAM ON COMPUTER PROGMINING	DEPT. OF PHYSICS, S S COLLEGE, HKD	REGIONAL	05
28	DBT SPONSORED 3 DAY HANDS ON TRAINING PROGRAM ON BASIC ELECTRONICS AND CIRCUIT DESIGNING	DEPT. OF PHYSICS, S S COLLEGE, HKD	REGIONAL	05
29	DBT SPONSORED INVITED TALK ON RELATIVITY AND NANOPARTICLES	DEPT. OF PHYSICS, S S COLLEGE, HKD	REGIONAL	05
30	NATIONAL LEVEL NCSC 2016	DST GOVT OF INDIA	NATIONAL	06
31	NATIONAL CONFERENCE RAMSA-10	DEPT. OF MATHEMATICS, AUS	NATIONAL	06
32	DISTRICT LEVEL MEET OF NCSC-2020	ASTEC, GHY	REGIONAL	05

III (E) (iii) Invited Lectures of presentations or conf./ Symposia

Sl. No.	Title of the lecture / Academic session	Title of the Conf./ Seminar	Organised by	Whether International / National/STATE	API Score
1	IMPACT OF 23RD NATIONAL CHILDREN'S SCIENCE CONGRESS	STATE LEVEL RESOURCE PERSON TRAINNING	ASTEC, GUWAHATI	STATE	02
2	SCIENCE AND MATHEMATICS	2011 TET COACHING PROGRAM	ASSAM SCIENCE SOCIETY, HAILAKANDI	REGIONAL	02
3	ENVIRONMENTAL EDUCATION	ORIENTATION PROGRAM OF SECONDARY	ASTEC, GUWAHAT	REGIONAL	02

		SCHOOL TEACHERS ON ENV. EDUCATION			
4	DIFFERENT ASPECTS OF NCSC	20 TH STATE LEVEL RESOURCE PERSON TRAINING	ASTEC, GUWAHATI	STATE	02
5	HOW TO WRITE A PROJECT	RESOURCE PERSON ON DISTRICT LEVEL MEET OF NCSC 2015, HKD	ASTEC, GHY	REGIONAL	02
6	IMPORTANCE OF WORLD YEAR OF PHYSICS	RESOURCE PERSON IN PHYSICS IN PHYSICAL SCIENCE TRAINING WORKSHOP 2006	DST AND ASTEC , GHY	REGIONAL	02
7	LOW COST SCIENCE MODEL FOR EXHIBITION	RESOURCE PERSON ON LOW COST TEACHING - LEARNING	ASSAM SCIENCE SOCIETY AND DST , GOVT OF INDIA	REGIONAL	02
8	HOW YOU CAN MAKE SCIENCE AND MATH INTERESTING	RESOURCE PERSON ON SCIENCE AND MATH	RMSA, HKD	REGIONAL	02
9	ROLE OF SCIENCE AND MATHS IN DAILY LIFE	RESOURCE PERSON ON SCIENCE	RMSA, HKD	REGIONAL	02