

Research and development in Pub Kamrup College

1. Major Research Projects

SI No.	Name of the Project	Name of the Principal Investigator	Year of Award	Collaboration	Amount Sanctioned (Rs.)	Duration of the project	Name of the Funding Agency	Link
1.	Development of a Cloud Computing Based Wireless Sensor for Patient Monitoring System in Health Care Engineering	Dr. Julie Saikia Physics	2019	IIT Guwahati	1086750/-	2 years	DBT, Govt. of India	http://pubkamrupcollege.co.in/project1.pdf
2.	To investigate the interaction between Microbes and microbial product and mosquito Larvae for Controlling Larval Population <i>in vivo</i>	Dr. Kamal Sarma Zoology	2018	Assam University, Diphu Campus	8,00,000/-	2 Years	DBT, Govt. of India	http://pubkamrupcollege.co.in/project2%20.pdf
3.	Exploring the inhibitory effect of biopesticide on virulence and pathogenicity in <i>Magnoprothe oryzae</i>	Dr Dipak Konwar	2016	Amity University	35,80,000/-	2 Years	DBT, Govt. of India	http://pubkamrupcollege.co.in/project3.pdf

2. Minor Research Projects

Department	Name of the faculty	Topic	Sponsored By	Amount (Rs.)	Year
Botany	Dr Dipak Konwar	Mycorrhiza of muga host plants.	UGC	1,48,000/-	2012
	Dr P C Kalita	Fern diversity in Madankamdev hill regions of Kamrup district, Assam	UGC	1,20,000/-	2013
		Observation on Endemic, Rare and Threatened Angiospermic plants of Kamrup district, Assam	UGC	1,00,000/-	2010
		Studies on Floristic Diversity of North Guwahati Hill Region of Kamrup district, Assam	UGC	75,000/-	2005 – 2007
Assamese	Dr Khagesh Sen Deka	a) <i>Asamiya Byakaranar Kramabikas : Eti Bislesanatmak Adhyayan</i>	UGC	1,40,000/-	2009–2010
		b) <i>Patidarang Ancalar Puroi Puthi-Panji : Eti Kshetrabhittik Adhyayan</i>	UGC	65,000/-	2005– 2007
	Mr. Barnali Deka	Orissa Aru Asamor Loka Bhaxar Tulanatmok Adhyayan : Kamrup Aru Baleswar Jilar Ullikhan Saha.	UGC	80,000/-	2005-2007
		Kamrup Aru Viraja Mandirar Reeti-Neeti-Pratha Aru Parampara : Eti Tulanamulak Adhayan	UGC	1,48,000/-	2008-2010
	Nayanmoni Baruah	Asamar Sadhu Kathat Samaj-Jiwanar Pratifalan: Etiadhyayan	UGC	55,000/-	2012-2013
	Dulumoni Deka	Asamiya Sahityat Droupadi: Eti Samikshatmak Adhyayan	UGC	1,20,000/-	2009-2010
		Syed Abdul Malika Oipanyashat Nadi	UGC	90,000/-	2013
Zoology	Dr Kamal Sarma	A survey of the indigenous ornamental fishes available in various water bodies in Kamrup District.	UGC	1,00,000/-	2005-2007
	Dr Manash Barthakur	Role of water extract of selected traditionally used antidiabetic plant against induced diabetic mammal	UGC	1,00,000/-	2004-2006

		Protection of diabetic lens by antidiabetic polyherbal formulation.	UGC	75,000/-	2007- 2009
Economics	Mr. Khagen Das	Mobilisation of Resources by Gaon Panchayats in Assam	UGC	25,000/-	2009 – 2011
	Narayan Goswami	On Employment potential of brick kiln of Kamrup District.	UGC	1,00,000/-	2009-2010
Physics	Dr B K Dev Choudhury	Links between Nonlinear Dynamics and Thermodynamics	UGC	50,000/-	2007 -2009
		Some Aspects of Modified chaplygin Gas(added with a Brane-world Cosmological perspective	IASc	Sponsored by the Institute	2010
	Dr Julie Saikia	On primary mass composition of Giant air showers	UGC	50,000/-	2007-2009
English	Mr. Dipen Bezbaruah	<i>Tradition and Practices of the Tea Tribes of Darrang and Sonitpur District of Assam : A Folkloristic Study</i>	UGC	1,30,000/-	2012
	Mr. Montu Saikia	A Study on the Grammar and Vocabulary of Sari as is Spoken by the Tea Garden Areas of Assam with Special Reference to Jorhat District	UGC	1,50,000/-	2012
Geography	Mr. Aditya Deka	Impact of Drought Hazard on Agriculture in Rangia Subdivision	UGC	60,000/-	2008
	Diganta Kr Rabha	Impact of Flood Hazard on Agriculture in Rangia Subdivision	UGC	60,000/-	2008
	Mr. Ayez Ali	Geo-environmental Status of Wetlands in Hajo Development Block, A case of some selected beels	UGC	1,20,000/-	2012
Statistics	Mr. Atwar Rahman	Determination of Relationship between the Temperature and Length of Day in the context of Assam.	UGC	1,25,000/-	2011
History	Imdad Ali Ahmed	Aspects of Historical Geography of Medieval Assam	UGC	60,000/-	2008

		Pratap Singha and His Times	UGC	50,000/-	2004
Chemistry	Dr Utpaljayoti Medhi	Hydrology and Ecological Quality of an Urban Wetland System- A Case Study with Deepor Beel, Guwahati, Assam.	UGC	65,000/-	2007
		Study on Water and Soil Quality near a Pulp and Paper Mill - A case study in and around Jagiroad Area	UGC	85,000/-	2009
		Study on Water Specially Drinking Water Quality in an around Bihata Chariali	UGC	1,20,000/-	2011
	Dr. Nripendra Nath Talukdar	Chemical and spectroscopic analysis of <i>Kolakhar</i> - the food additive derived from banana plant	UGC	55,000/-	2006
		Potassium Chloride from banana plant	UGC	1,30,000/-	2011
Philosophy	Jiban Ch. Sarma	Superstition and its impact on rural people of Pub Kamrup Area, Causes and Remedies: A Case study	UGC	95,000/-	2011
Education	Dr. Alaka Das	Education of the differently abled at the secondary level and role of Rastriya Madhyamik Siksha Abhiyan (RMSA)	UGC	180000/-	2015

3. Patent:

1. Dr Nripendra Nath Talukdar, Associate Professor, Department of Chemistry has one patent. **Indian Patent No. 222135 dated 23/07/2008**; Title – A method for isolation of Potassium Carbonate from Banana Plant.
2. Dr Talukdar has filed another patent application (Application No. 1669/KOL/2008 of 26/09/2008; Title–Highly Efficient Catalyst from Banana plant for Transesterification of Vegetable Oils to Fatty Acid Methyl Esters).

4. Student Research Projects:

(A) Research projects done in reputed universities/research institutes:

Sl. No.	Name of student	Programme	Institute where work done	Supervisor	Sponsored by	Year	Topic
1.	Alakjyoti Patowary	Summer Research Fellowship Programme	Assam Science and Technology University, Assam	Dr. Bharat Kakati ASTU	DST, Govt. of India	2019	A study on Non-Thermal Air Plasma in Experimental Glow Discharge Reactor
2.	Rinki Deka	Summer Research Fellowship Programme	Aligarh Muslim University	Prof. Wasim Ahmed	IAS, Bengaluru & NSA, New Delhi	2015	Some studies on soil inhabiting nematodes and their role in soil ecosystem
3.	Kabita Deka	Summer Research Fellowship Programme	Bharathidasan University, Tiruchirappalli	Prof. Paulasamy Muruganandam Bharathi Darshan University	IAS, Bengaluru & NSA, New Delhi	2013	Brain rhythms- a physics based investigation
4.	Harun Al Rashid	Summer Research Fellowship Programme	Jamia Millia Islamia, New Delhi	Prof. Mahammad Sami Jamia Millia Islamia	IAS, Bengaluru & NSA, New Delhi	2012	Some basic ideas on Friedmann- Cosmological model
5.	Bhaswati Sarma	M.Sc. Project	Institute of Advanced Study in Science and Technology, Govt. of India	Dr. Biswajit Choudhury	---	2019	Gold nanoparticles decorated MgO nanoflakes for UV photocatalytic application
6.	Kaushik Sarkar	M.Sc. Project	Institute of Advanced Study in Science and Technology, Govt. of India	Dr. Biswajit Choudhury	---	2019	Insulating MgO decorated two-dimensional carbon nitride nanosheet for an interfacial photocatalysis

7.	Mrinal Das	Zoology	Summer Research Fellowship Programme	IASST, Guwahati		2018	
8.	Hirak Jyoti Deka	Zoology	Summer Research Fellowship Programme	IASST, Guwahati		2018	

(B) In-house student research projects:

Sl. No.	Title of Project	Department	Programme attended/Selected	Funded by	Year
1.	Theoretical and experimental studies of the impacts of change in water quality on aquatic community	Biophysics			2019
2.	Green synthesis of gold nanoparticle from neuroactive natural source				2019
3.	Screening of differently synthesized nanoparticles for better larvicidal activity from natural source				2019
4.	In silico simulations of some neuroactive receptors for its enhanced activities				2019
5.	Development and application of sensors for vital body parameter measurement in Biomedical instrumentation				2019
6.	Green synthesis (Aloe Vera) of ZnO nanoparticles (Cu doped and Cu undoped)				2019
7.	Biofuel extraction from waste materials				2019

8.	Chemical synthesis of ZnO nanoparticles				2019
9.	Antimicrobial activity of metal-organic frameworks (MOF)				2019
10.	Synthesis of water soluble carbon nanoparticles and its application in agriculture				2019
11.	Theoretical and experimental studies of the impacts of change in water quality on aquatic community				2019
12.	Development of biscuits using kidney bean flour and storage study	Food Processing and Quality Management			2019
13.	Fortification of cake with black rice and shelf life study				2019
14.	Development of fortified papad and shelf life study				2019
	Analytical study of barium titanate and magnesium oxide nanoparticles				2019
15.	Preparation of chemically deposited nanocrystalline lead sulphide	Physics			2019
16.	Design of a regulated power supply using Integrated circuit and Zener diode				2019
17.	Project on Water Level Indicator				2019
18.	A Study on the Impact of Rape Cases Crime in Greater Baihata Chariali Area		Statistics		
19.	A Project on Trend Analysis of Crime Cases in Assam from 2001-2010				
20.	Graph Coloring and its Real Time Application: An				2019

	Overview				
21.	Boolean Algebra and Mathematical Logic	Mathematics			2019
22.	Some Properties of Klein four group, Dihedrals and Quaternions				2019
23.	Check Digit Generation of University Registration Number using Theory of Congruences of Number Theory				2019

5. Publications of faculty members:

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Link of the recognition in UGC enlistment of the Journal
Designing ferroelectric/ferromagnetic composite with giant self-biased magnetoelectric effect	Bipul Deka, Yong-Woo Lee, I-Ryeol Yoo, Do-Woo Gwak, Jiung Cho, Hyun-Cheol Song, Jong-Jin Choi, Byung-Dong Hahn, Cheol-Woo Ahn, and Kyung-Hoon Cho	Physics and Biophysics	Applied Physics Letters	2019	ISSN 0003-6951 (print) 1077-3118 (web)	https://aip.scitation.org/doi/abs/10.1063/1.5128163?journalCode=apl

Magnetic and Dielectric Properties of $Y_{3-x}Sm_xFe_5O_{12}$ ($x = 0.0$ to 3.0)	B Deka, S Ravi		Journal of Superconductivity and Novel Magnetism	2018	ISSN 1557-1939	https://link.springer.com/article/10.1007/s10948-017-4436-3
Ferromagnetism in Fe-doped $BaTiO_3$ Ceramics	B Deka, S Ravi		Journal of Superconductivity and Novel Magnetism	2018	ISSN 1557-1939	https://link.springer.com/article/10.1007/s10948-017-4321-0
Effect of Mn doping on magnetic and dielectric properties of $YFeO_3$	B Deka, S Ravi, A Perumal, D Pamu		Ceramics International	2017	ISSN: 0272-8842	https://www.sciencedirect.com/science/article/pii/S0272884216318545
Impedance spectroscopy and ac conductivity mechanism in Sm doped Yttrium Iron Garnet	B Deka, S Ravi, D Pamu		Ceramics International	2017	ISSN: 0272-8842	https://www.sciencedirect.com/science/article/pii/S0272884217308891
Evolution of structural transition, grain growth inhibition and collinear antiferromagnetism in $(Bi_{1-x}Sm_x)FeO_3$ ($x = 0$ to 0.3) and their effects on dielectric and magnetic	B Deka, S Ravi, D Pamu		Ceramics International	2017	ISSN: 0272-8842	https://www.sciencedirect.com/science/article/pii/S0272884217319624

Study of impedance spectroscopy and electric modulus of $\text{PbTi}_{1-x}\text{Fe}_x\text{O}_3$ ($x=0.0-0.3$) compounds	B Deka, S Ravi		Journal of Alloys and Compounds	2017	ISSN: 0925-8388	https://www.sciencedirect.com/science/article/abs/pii/S0925838817319126
Study of Exchange Bias in Mn-Doped YFeO_3 Compound	B Deka, S Ravi, A Perumal		Journal of Superconductivity and Novel Magnetism	2016	ISSN 1557-1939	https://link.springer.com/article/10.1007/s10948-016-3521-3
100 MeV Si^{9+} swift heavy ion irradiation induced enhancement in electrochemical properties of electrolyte membrane composites based on ionic liquid-polymer-nanocomposite	A.K. Nath and A. Kumar	Physics	Journal of Membrane Science	2015	0376-7388	https://www.sciencedirect.com/science/article/pii/S0376738815001969
Enhancement of electrochemical properties of ionic liquid based nanocomposite polymer electrolytes by 100 MeV Si^{9+} swift heavy ion irradiation.	A.K. Nath and A. Kumar		Ionics	2014	ISSN No.: 0947-7047 (print) 1862-0760 (online)	https://link.springer.com/article/10.1007/s11581-014-1133-0
Scaling of AC conductivity, electrochemical and thermal properties of ionic liquid based polymer nanocomposite electrolytes	A.K. Nath and A. Kumar		Electrochimica Acta	2014	ISSN No.: 0013-4686	https://www.sciencedirect.com/science/article/pii/S0013468614004150

Swift heavy ion irradiation induced enhancement in electrochemical properties of ionic liquid based PVdF-HFP-layered silicate nanocomposite electrolyte membranes	A.K. Nath and A. Kumar		Journal of Membrane Science	2014	ISSN No.: 0376-7388	https://www.sciencedirect.com/science/article/pii/S0376738813008739
Ionic Liquid based Polymer Electrolyte dispersed with Dedoped Polyaniline Nanorods	A.K. Nath and A. Kumar		Solid State Ionics	2013	ISSN No.: 0167-2738	https://www.sciencedirect.com/science/article/abs/pii/S016727381300372X
Ionic transport properties of PVdF-HFP-MMT intercalated nanocomposite electrolytes based on ionic liquid, 1-butyl-3-methylimidazolium bromide	A.K. Nath and A. Kumar		Ionics	2013	ISSN No.: 0947-7047 (print) 1862-0760 (online)	https://link.springer.com/article/10.1007/s11581-013-0878-1
Gamma Ray Irradiation Effects on the Ferroelectric and Piezoelectric Properties of Barium Titanate Ceramics	Nirmali Medhi and A.K. Nath		Materials Engineering and Performance	2013	ISSN No.: 1059-9495 (print) 1544-1024 (online)	https://link.springer.com/article/10.1007/s11665-013-0569-0
Effect of gamma ray irradiation on the ferroelectric and piezoelectric properties of barium stannate titanate ceramics	A.K. Nath and Nirmali Medhi		Radiation Physics and Chemistry	2013	ISSN No.: 0969-806X	https://www.sciencedirect.com/science/article/abs/pii/S0969806X13003381
Piezoelectric properties of environmental friendly bismuth doped barium titanate ceramics	A.K. Nath and Nirmali Medhi		Materials Letters	2012	ISSN No.: 0167-577X	https://www.sciencedirect.com/science/article/abs/pii/S0167577X11015606

Density variation and piezoelectric properties of Ba(Ti _{1-x} Sn _x)O ₃ ceramics prepared from nanocrystalline powders	A.K. Nath and Nirmali Medhi		Bulletin of Materials Science	2012	ISSN No.: 0250-4707 (print) 0973-7669 (electronic)	https://www.ias.ac.in/article/fulltext/boms/035/05/0847-0852
Barium titanate nanoparticles produced by planetary ball milling and piezoelectric properties of corresponding ceramics	K. Chandramani Singh, A.K. Nath		Materials Letters	2011	ISSN No.: 0167-577X	https://www.sciencedirect.com/science/article/abs/pii/S0167577X10010967
Structural, electrical and piezoelectric properties of nanocrystalline tin-substituted barium titanate ceramics	K. Chandramani Singh, A.K. Nath , Radhapiyari Laishram, O.P. Thakur		Journal of Alloys and Compounds	2011	ISSN No.: 0925-8388	https://www.sciencedirect.com/science/article/abs/pii/S0925838810028690
Ferroelectric, piezoelectric and electrostrictive properties of Ba(Ti _{1-x} Sn _x)O ₃ ceramics obtained from nanocrystalline powder	A.K. Nath , K. Chandramani Singh, Radhapiyari Laishram, O.P. Thakur		Materials Science and Engineering B	2010	ISSN No.: 0921-5107	https://www.sciencedirect.com/science/article/pii/S092151071003326
Influence of ball milling parameters on the particle size of barium titanate nanocrystalline powders	A.K. Nath , Chongtham Jiten, K. Chandramani Singh		Physica B	2010	ISSN No.: 0921-4526	https://www.sciencedirect.com/science/article/abs/pii/S0921452609010680
Effect of ball milling time on the electrical and piezoelectric properties of barium titanate ceramics	A.K. Nath , Chongtham Jiten, K. Chandramani Singh, Radhapiyari Laishram, O. P. Thakur, D. K. Bhattacharya		Integrated Ferroelectrics	2010	ISSN No.: 1058-4587 (print) 1607-8489 (online)	https://www.tandfonline.com/doi/abs/10.1080/10584587.2010.488572

Electrical and piezoelectric properties of lead-free $(K_{0.5}Na_{0.5})(Nb_{0.9}Ta_{0.1})O_3$ ceramics prepared from nanopowders	Chongtham Jiten, A.K. Nath , K. Chandramani Singh, Radhapiyari Laishram, O.P. Thakur, D.K. Bhattacharya		Integrated Ferroelectrics	2010	ISSN No.: 1058-4587 (print) 1607-8489 (online)	https://www.tandfonline.com/doi/abs/10.1080/10584587.2010.489460
Ionic conduction and phase separation studies in P(VdF-HFP)-LiClO ₄ -dedoped polyaniline nanofiber composite polymer electrolytes - II: Effect of incorporation of PC and DEC	A. K. Nath , M. Deka and A. Kumar		Indian Journal of Physics	2010	ISSN No.: 0973-1458 (print) 0974-9854 (online)	https://link.springer.com/article/10.1007/s12648-010-0119-7
Ionic conduction and phase separation studies in PEO-P(VdF-HFP)-LiClO ₄ -dedoped polyaniline nanofiber composite polymer electrolytes – I	M. Deka, A.K. Nath and A. Kumar		Indian Journal of Physics	2010	ISSN No.: 0973-1458 (print) 0974-9854 (online)	https://link.springer.com/article/10.1007/s12648-010-0118-8
Effect of dedoped (insulating) polyaniline nanofibers on the ionic transport and interfacial stability of poly(vinylidene fluoride-hexafluoropropylene) based composite polymer electrolyte membranes	M. Deka, A.K. Nath , A. Kumar		Journal of Membrane Science	2009	ISSN No.: 0376-7388	https://www.sciencedirect.com/science/article/pii/S037673880800985X
Discriminant feature level fusion based learning for automatic staging of EEG signals	Anil Hazarika, A Sarmah, R. Borah, M. Boro, L.Dutta, P. Kalita, and B. K. Dev Choudhury		Healthcare Technology Letters	2018	2053-3713	https://digital-library.theiet.org/content/journals/10.1049/htl.2018.5024
Inherent multi-view feature fusion using canonical correlation for classification of Electroencephalogram (EEG) signals	A Sarmah, S Kalita, BKD Choudhury	Computer Science	International Journal of Applied Engineering Research	2018	ISSN 0973-4562. Online ISSN 0973-9769	https://www.semanticscholar.org/paper/Inherent-multiview-feature-fusion-using-canonical-(Sarmah/fdfcb8d3b556502c79792eb4719b928c929717ae

Discriminant Correlation-Based Information Fusion for Real-Time Biomedical Signal Clustering	A Hazarika, A Sarmah, M Boro, P Kalita, BKD Choudhury		Advances in Communication, Devices and Networking	2018	978-981-10-7901-6	https://link.springer.com/chapter/10.1007/978-981-10-7901-6_51
Human Identification using Ear as a Biometric - A Review	Rahul Lahkar, Dr. Khurshid Alam Borbora		Journal of Artificial Intelligence Research & Advances	2019	2395-6720	http://computers.stmjournals.com/index.php?journal=JoAIRA&page=article&op=view&path%5B%5D=2021
Chemically deposited nanocrystalline PbS: effect of substrates	N Choudhury	Physics	Indian Journal of Physics	2016	ISSN: 0973-1458 (Print); 0974-9845 (Online)	https://link.springer.com/article/10.1007/s12648-015-0757-x
Study of chemically synthesized SHI irradiated CdS nanostructured films	P.K. Mochahari, Ananta Rajbongshi, Nava Choudhury, F. Singh and K.C. Sarma		<i>Advanced Materials Letters</i>	2015	0976-3961	https://www.vbripress.com/aml/articles/details/639
Understanding the Dynamical Behaviour of Chaplygin Gas Cosmology	Julie Saikia		33rd ICRC	2013		https://galprop.stanford.edu/library/icrc/2013/papers/icrc2013-0035.pdf
Current status of the expanded GRAPES collaboration experiment at Ooty in India	Julie Saikia et al.		Proceedings of the 30th ICRC	2008		http://inspirehep.net/record/1371557/files/access.pdf
Studies on Lateral Distribution of Electrons in UHE Air Showers	J Saikia, P Datta, PM Kalita, KM Pathak		23rd ICRC	1993		http://adsabs.harvard.edu/full/1993ICRC....4..346S
Generalized Second Law and Brane Cosmological Model with Phantom Dominated Bulk	Julie Saikia, Balendra Kr Dev Choudhury		32nd ICRC	2011		http://inspirehep.net/record/1352459
Some Discussion on Thermodynamical Behaviour of Modified Chaplygin Gas	Balendra Kr. Dev Choudhury, Julie Saikia		arXiv preprint arXiv:1006.1461	2010		https://arxiv.org/abs/1006.1461

Dark Energy and Search for the Generalized Second Law	Balendra Kr. Dev Choudhury, Julie Saikia		arXiv preprint arXiv:0906.0644	2009	https://arxiv.org/abs/0906.0644
On primary mass composition of giant air showers	Julie Saikia and Pranayee Datta		29 th ICRC	2005	http://cds.cern.ch/record/965312/files/17163-ind-saikia-J-abs1-he14-oral.pdf
On Some Aspects of Age Parameter Associated with Extensive Air Showers Having Energy Ranging from~ 1014eV to~ 1020eV	Julie Saikia, Pranayee Datta		28 th ICRC	2003	http://adsabs.harvard.edu/full/2003icrc....1..325s
Characteristics of Age Parameter for Giant Air Showers	Julie Saikia		26 th ICRC	1999	http://adsabs.harvard.edu/full/1999ICRC....1..395S
Dynamical Interpretation of Viscous Term of Chaplygin Gas Cosmology	Balendra Kumar Dev Choudhury		33 rd ICRC	2013	https://galprop.stanford.edu/elibrary/icrc/2013/papers/icrc2013-0038.pdf
Generalised Second Law and Brane cosmological Model with Phantom Dominated Bulk	Balendra Kumar Dev Choudhury		32 nd ICRC	2011	http://inspirehep.net/record/1352459/citations
Studies On Curvature Tensor and Geodesic Deviation Equation	Balendra Kr. Dev Choudhury, B.C. Kalita		30 th ICRC	2007	http://inspirehep.net/record/1371403/
Hénon-Heiles Type Hamiltonian in Cosmological Perspective	Balendra Kr. Dev Choudhury, B.C. Kalita		28th ICRC	2003	https://ui.adsabs.harvard.edu/abs/2003ICRC....3.1717C/abstract
Investigation on the Thermo dynamical properties of some natural silk fibres with various physical methods	M.N. Bora, G.C. Baruah, C.L. Talukdar		Thermochimica Acta	1993	ISSN: 0040-6031 https://www.sciencedirect.com/science/article/abs/pii/004060319380441C
Studies on the dielectric properties of some natural (plant) and synthetic fibres in audio frequency range and their DC conductivity at elevated temperature	M.N. Bora, G.C. Baruah, C.L. Talukdar		Thermochimica Acta	1993	ISSN: 0040-6031 https://www.sciencedirect.com/science/article/abs/pii/004060319380442D

Effect of swift heavy ion irradiation on lead sulfide quantum dots embedded in polyvinyl alcohol	N. Choudhury et al.		Radiation Effects and Defects in Solids	2013	Print ISSN: 1042-0150 Online ISSN: 1029-4953	https://www.tandfonline.com/doi/abs/10.1080/10420150.2012.761995
Protecting Role of AuNP Conjugated Insulin on Piameter and Granular Region of Mice Brain Damaged by PTZ induced Seizure.	Pankaj Kalita, Manash Barthakur, Neelom Gogoi and Devasish Chowdhury	Zoology	<i>Int J Pharm Bio Sci,</i>	2015	0975-6299	https://ijpbs.net/abstract.php?article=NDEyNg==
<i>In silico</i> Modelling and Structural Characterization of γ - Aminobutyrate Aminotransferase (GABA - AT)	Pankaj Kalita, Rituparna Sarma, Pratap K Parida, Chadipiralla Kiranmai, Manash Barthakur & P. Vijaya Bhaskar Reddy;		<i>Indo American J Pharm Res.</i>	2014	2231-6876	https://www.semanticscholar.org/paper/IN-SILICO-MODELLING-AND-STRUCTURAL-CHARACTERIZATION-Kalita-Sarma/c0167f1f78aa624b847e5cee9724e3f5b422e4a5
<i>In-vitro</i> Study on the Effect of Citrate Stabilized AuNP on RBC	Chayanika Devi, Pankaj Kalita and Manash Barthakur;		Elsevier Materials today's proceedings,	2016	ISSN: 2214-7853	https://www.sciencedirect.com/science/article/pii/S2214785316303571
<i>Rapid detection and quantification of Enterovirus 71 by a portable surface plasmon resonance biosensor</i>	Briliant Adhi Prabowoaf, Robert Y.L.Wangbd, Muhammad Khari Secarioa, Po-Ting Ou, Azharul Aloma, Jia-JungLiu, Kou-Chen Liu		Biophysics Biophysics	Biosensors and Bioelectronics	2017	ISSN: 0956-5663
Rapid screening of <i>Mycobacterium tuberculosis</i> complex (MTBC) in clinical samples by a modular portable biosensor	Briliant Adhi Prabowo, Ying-Feng Chang, Hsin-Chih Lai, Azharul Alom, Parthasarathi Pal, Yu-		Sensors and Actuator B:Chemical Journal	2018	ISSN: 0925-4005	https://www.sciencedirect.com/science/article/pii/S0925400517313102

	Ying Lee, Nan-Fu Chiu, Koji Hatanaka, Li-Chen Su, Kou-Chen Liu					
Room Temperature Ring Opening of Epoxides Over Triflic Acid Functionalized Cage Like Mesoporous Materials	Prantu Dutta Dr. Pranjali Kalita Dr. Pranjali K. Baruah		Chemistry Select	2016	2365-6549	https://onlinelibrary.wiley.com/doi/10.1002/slct.201600500
Cage Like Al-KIT-5 Mesoporous Materials for C-C Bond Formation Reactions Under Solvent Free Conditions	Pranjali K. Baruah, Prantu Dutta, Pranjali Kalita		Catalysis Letters	2015	1011-372X (print) 1572-879X (web)	https://link.springer.com/article/10.1007/s10562-015-1611-7
Deamination of Betti bases: a facile route to 1-alkyl-2-naphthols and phenols via a metal-free transfer hydrogenation under microwave irradiation	Prantu Dutta, Choitanya Dev Pegu, Mohit L. Deb, Pranjali K. Baruah		Tetrahedron Letters	2015	0040-4039	https://www.sciencedirect.com/science/article/pii/S0040403915008400
Brønsted-Acid-Mediated Divergent Reactions of Betti Bases with Indoles: An Approach to Chromeno[2,3-b]indoles through Intramolecular Dehydrogenative C2-Alkoxylation of Indole	Mohit L. Deb Choitanya Dev Pegu Bhaskar Deka Prantu Dutta Amol S. Kotmale Pranjali K. Baruah		European journal of organic chemistry	2016	1099-0690	https://onlinelibrary.wiley.com/doi/10.1002/ejoc.201600546
Impact of Gold Nanoparticles on Electrophysiology and Intracellular Calcium in Cultured Neuron,	Manash Barthakur	Zoology	Research Journal of Life Sciences, Bioinformatics, Pharmaceutical and Chemical Sciences	2018	2454-6348	http://www.rjlbpccs.com/article-pdf-downloads/2018/19/236.pdf

A Study on Emotional Intelligence in Relation to General Intelligence and Spiritual Intelligence	Alaka Das	Education	Indian Journal of Applied Research	2016	ISSN No. 2249-555X	https://www.worldwidejournals.com/indian-journal-of-applied-research-(IJAR)/fileview/August_2016_1470034335_91.pdf
A Study Of Environmental Awareness, Environmental Attitude And Ecological Behaviour Of The B. Ed Students	Alaka Das		Indian Journal of Applied Research	2016	ISSN No. 2249-555X	https://www.worldwidejournals.com/indian-journal-of-applied-research-(IJAR)/fileview/November_2016_1492175460_224.pdf
Attitude Of The B. Ed Students Towards Micro –Teaching- A Study	Alaka Das		Indian Journal of Applied Research	2017	ISSN No. 2249-555X	https://www.worldwidejournals.com/indian-journal-of-applied-research-(IJAR)/fileview/November_2017_1509516188_127.pdf
A Study Of The Relationship Between Emotional Intelligence And Teacher Effectiveness Of Teacher Educators	Alaka Das		Global Journal Of Research Analysis	2016	ISSN No. 2277-8160	https://www.worldwidejournals.com/global-journal-for-research-analysis-GJRA/fileview/November_2017_1509787032_77.pdf
Challenges In Implementation Of Iedss And Role Of Rmsa: A Study With Special Reference To Kamrup (R) District	Alaka Das		Global Journal Of Research Analysis	2018	ISSN No. 2277-8160	https://www.worldwidejournals.com/global-journal-for-research-analysis-GJRA/fileview/July_2018_1531402843_71.pdf
Metacognition and Learning: An Overview	Alaka Das		Global Journal Of Research Analysis	2016	ISSN No. 2277-8160	https://www.worldwidejournals.com/global-journal-for-research-analysis-GJRA/fileview/August_2016_1470490298_26.pdf

6. Seminars/Workshops/Conferences attended by faculty members

INTERNATIONAL IN ABROAD					
Sl. No.	Name of the participant	Seminar/ workshop/conference	Organizer	Activity performed	Year
1.	Dr B K Dev Choudhury, Principal	28 th International Cosmic Ray Conference (ICRC)	IUPAP, Tsukuba, Japan	Paper presented	2003
		30 th ICRC	IUPAP, Merida, Mexico	Paper presented	2007
		31 st ICRC	IUPAP, Lodz, Poland	Paper presented	2009
		32 nd ICRC	IUPAP, Beijing, China	Paper presented	2011
		33 rd ICRC	IUPAP, Rio de Janeiro, Brazil	Paper presented	2013
2.	Dr Chitralekha Talukdar, Associate Professor, Department of Physics	8 th Asian Thermo physical Properties Conference	Kyushu Univ. Fukuoka, Japan	Paper presented	2007
3.	Dr Julie Saikia Associate Professor, Department of Physics	23 rd ICRC	IUPAP, Calgary, Canada	Paper presented	1993
		24 th ICRC	IUPAP, Rome, Italy	Paper presented	1995
		28 th ICRC	IUPAP, Tsukuba, Japan	Paper presented	2003
		30 th ICRC	IUPAP, Merida, Mexico	Paper presented	2007
		31 st ICRC	IUPAP, Lodz, Poland	Paper presented	2009
		32 nd ICRC	IUPAP, Beijing, China	Paper presented	2011
		33 rd ICRC	IUPAP, Rio de Janeiro, Brazil	Paper presented	2011
4.	Dr. Nripendra Nath Talukdar		China	Paper presented	
5.	Dr. Navajyoti Choudhury	4 th HYMA	Spain	Paper presented	2015

INTERNATIONAL WITHIN THE COUNTRY

Sl. No.	Name of the participant	Seminar/ workshop/conference	Organizer	Activity performed	Year
1.	Aditya Ch Deka Associate Professor Department of Geography	International Seminar on Land use, Biodiversity and Climate Change”	Dept of Geography, Cotton college.	Paper represented	2010
2.	Dr B K Dev Choudhury, Principal	29 th ICRC	IUPAP, Pune, India	Paper presented	2005
3.	Dr Chitralakha Talukdar, Associate Professor, Department of Physics	6 th Asian Thermo physical Properties Conference	Gauhati University	Paper presented	2001
4.	Dr Julie Saikia Associate Professor, Department of Physics	ICNAP	IIA, Bangaluru	Paper presented	1994
		29 th ICRC	IUPAP, Pune, India	Paper presented	2005
5.	Dr Navajyoti Choudhury Associate Professor Department of Physics	International Conference	(IUAC), New Delhi	Paper presented	2012
		ICANN	IIT G,	Paper presented	2011
		ICFANT	Jadavpur University, Kolkata-700032	Paper presented	2010
		SHIMEC	IUAC, New Delhi	Paper presented	2010
6.	Dr. Khagesh SenDeka Associate Professor, Department of Assamese	International seminar on Genres of Belief from Folkristic Perspective	USTM in collaboration with University of Tartu	Presented	2013
7.	Montu Saikia, Assistant Professor, Department of English	International Seminar on “Genres of Belief From Folkloristic Perspective”	USTM	-do-	2013

8.	Dr Dipak Konwar, Assistant Professor, Department of Botany	International Conference on Harnessing Natural Resources for Sustainable Development: Global Trend	Cotton College State University	-do-	29-31 January, 2013
9.	Atwar Rahman, Associate Professor, Department of Statistics	International conference- Recent Trends in probability and statistics: Theory and Application	Gauhati University	-do-	2012
10.	Md. Ayez Ali, Assistant Professor, Department of Geography	International seminar on Land use, Biodiversity and Climate Change	Dept of Geography, Cotton college	-do-	/2010
11.	Dipen Bezbaruah, Assistant Professor, Department of English	International Seminar on Genres of Belief from a Folkloristic Perspective	USTM, Meghalaya	-do-	2013
		International seminar on Tradition Identity and Diversity: the Future of Indigenous Culture in a Globalised World		-do-	2011
		International workshop on Teaching English Language Skills	Sonapur College	-do-	2011
12.	Dr Kalpana Misra Assistant Professor Department of Mathematics	International Conference on “Recent Advances in Mathematical Statistics and its Application in Applied Sciences”	Gauhati University,	-do-	2012
13.	Nayanmoni Baruah, Assistant Professor, Department of Assamese	International seminar on: Supernatural Elements in the Folk-tales of Assam with special reference to <i>Lakshminath Bezbarooah’s Burhi Aair Sadhu</i>	University of Science and Technology, Meghalaya, India	-do-	2013
14.	Dr. Paresh Ch. Kalita, Associate Professor, Department of Botany	International conference on harnessing national resources for sustainable development: Global trends	Cotton College, Guwahati.	-do-	2014

7. Research Publications of students:

Title of paper	Name of the author/s	Name of journal	Year of publication	ISBN/ISSN number	Link of the recognition in UGC enlistment of the Journal
Evaluation of nutritional composition, nutraceutical property and antioxidant activity of peel extract of two species of Cucurbitaceae family	Chintu Mani Saikia, Dipak Konwar, Pankaj Kalita	Proceeding of UGC sponsored national seminar on “Food and Bioprocess Research for Industrial Application”	2017	-----	-----
Evaluation of nutritional composition, nutraceutical property and antioxidant activity of peel extract of two species of Cucurbitaceae family	Himashri Deka, Kamal Sarma, Pankaj Kalita;	Proceeding of UGC sponsored national seminar on “Food and Bioprocess Research for Industrial Application”	2017	-----	-----
In-vitro Study on the Effect of Citrate Stabilized AuNP on RBC	Chayanika Devi, Pankaj Kalita and Manash Barthakur	Elsevier Materials today’s proceedings	2016	ISSN: 2214-7853	https://www.sciencedirect.com/science/article/pii/S2214785316303571
Changes of Ascorbic Acid Content in Selected fruit under different storage temperature with varied length of time	Chayanika Devi, Pankaj Kalita and Manash Barthakur	Proceedings of national seminar on Molecular Biology and Biotechnology Research in North East India	2015	ISBN: 978-81-93152-50-8; pp: 148-154	-----
Effects of transfluthrin in olfactory memory of swiss albino mice using Buried Food Test	Nipu Kumar Das, Hirakjyoti Kakati, Pankaj Kalita and Manash Barthakur	Proceedings of national seminar on Molecular Biology and Biotechnology Research in North East	2015	ISBN: 978-81-93152-50-8; pp: 238-244	-----

		India			
Conjugation of L – glutamic acid and gold nanoparticles,	Parangam Goswami, Chetan Kashyap, Dipjyoti Baishya, A. R. Atique Ulla, Pankaj Kalita, Manash Barthakur and Navajyoti Choudhury	Proceedings of national seminar on Molecular Biology and Biotechnology Research in North East India, 2015	2015	ISBN: 978-81-93152-50-8; pp: 254-261	-----
Ethnobotanical Studies in Traditional Knowledge System of Alcoholic Beverage Production by Three Different Tribal Groups of Assam, India; Livelihood promotion through non-timber forest products in India with special reference to North East India	Pankaj Kalita, Lipika Lahkar, Chintu Mani Saikia and Dipak Konwar	Proceedings of national seminar on Molecular Biology and Biotechnology Research in North East India, 2015	2014	ISBN: 978-81-925433-7-6; pp: 111-119.	-----
To investigate the photosynthesis of a water plant on fresh and polluted water with the help of electrical conductivity	Partha Jyoti Kalita, Dipjyoti Sarma, Pranab Choudhury, Julie Saikia and B. Kr. Dev Choudhury;	Proceedings of national seminar on Molecular Biology and Biotechnology Research in North East India	2015	ISBN: 978-81-93152-50-8; pp: 214-225	-----
Analogy between the process of emission of electrons in photosynthesis and photoelectric effect – a Physics point of view	P. Sarmah, D. Sarma, P. Goswami, J. Saikia, B.K. Dev Choudhury	Proceeding of Emrging Science and Technologies: Impact on Environment and Human Health	2014	-----	-----

8. Alumni involved in research activities outside India:

Name of alumni	Institute Name	Purpose	Present Status
Dr. Biraj Kakati	Imperial College, London	Post-Doctoral Research	Assistant Professor, Department of Energy Tezpur University
Dr. Kamal Dutta	KEK, Tsukuba University, Japan	Collaborative research	Forensic Laboratory, Govt. of Assam
Dr. Bipul Deka	Kumoh National Institute of Technology, South Korea	Post-Doctoral Research	Continuing