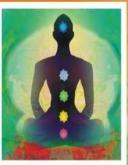




Centre for Indian Knowledge Systems Assam University, Silchar

Special Reference to Northeast Studies











Director and PI:	Prof. Nataraju Adarasupally, Dean, Sarvepalli Radhakrishnan School of Philosophical Studies, AUS						
	School of Thilosophical Studies, ACS						
<u>Co-PI's:</u>	Prof. Molankal Gangabhushan, Dept. of Social Work, AUS						
	Dr. Joyeeta Deb, Dept. of Business Administration, AUS						
	Dr. Ajita Tiwari, Dept. of Agricultural Engineering, AUS						
	Dr. Munmun Chakraborty, Dept. of Philosophy, AUS						
RA's:	Antara Ghosal, Dept. of Social Work, AUS						
	Sneha Nath, Dept of Business Administration, AUS						
	Chongtham Nonglen Meitei, Dept. of Philosophy, AUS						

PROJECT THEMES

Centre for Indian Knowledge Systems Center for North East Studies-Consciousness, Economy, Agriculture and Food Security.

Over View of the Project: By selecting four themes with specific objectives and outcomes, this center aims to educate and mentor research activities related to Indian Knowledge Systems in the North East India. Except Indian Consciousness Studies, the remaining three themes are directly related to North East India centered.

Four Themes of the Project:

Theme – I: New Approaches to do Indian Theories of Consciousness **Coordinator & PI :** Prof. Nataraju Adarasupally,

Dean, Sarvepalli Radhakrishnan School of Philosophical Studies, AUS

Co-PI: Dr. Munmun Chakraborty, Assistant Professor, Department of Philosophy, AUS.

Objectives:

1. The focus of the project would be to explore this 'new approach' of doing Indian philosophy as developed and perfected by KCB and RB.

2. To explore how Indian understanding of consciousness can contribute to contemporary consciousness studies and enables us to have a better comprehension of the 'hard problem' of consciousness.

Theme-II: Indigenous Models of Sustainable Rural Food Sovereignty in North East India **Co PI:** Prof. Molankal Gangabhushan, Department of Social Work, Assam University

Objectives:

1. To explore and identify indigenous Knowledge systems and practices for food sovereignty in North East India.

2. To analyse the factors having potential to improve household food security & challenges faced.

Theme-III: Indigenous Knowledge Practices in Trade and Commerce in North East India Co PI: Dr. Joyeeta Deb, Assistant Professor, MBA, AU

Objectives:

1. To assess the export potentialities of the indigenous knowledge based eco-friendly handloom and handicraft industries in north eastern region of India and suggest strategies to unlock these potentialities through suitable policy measures.

2. To make an objective and holistic estimation of efficiency of firms engaged in handloom and handicraft industry and ascertaining the potentials for improvement in efficiency.

Theme-IV: Enhanced Nutritional Security and Food Sustainability through Traditional Fermented Foods of North East India.

Co PI: Dr. Ajita Tiwari, Assistant Professor, Agricultural Engineering, AU

Objectives:

1. Identification of high value wild medicinal and aromatic plants of food, pharmaceutical and nutraceutical importance through Participatory Rural Appraisal (PRA) in the north east India.

2. Development of value chain management strategies for these high value aromatic and medicinal plant species keeping socio-economic development of local tribalpeople

3. Exploration of potential probiotic attributes and bioprotective potential of bacteriocin for application in food preservation.

PhD's

Topic: Nutrition and Maternal Health of Women in Construction Sector: A study with reference to Kamrup (Metro)

Name: Antara Ghosal Supervisor: Prof. M. GangaBhushan Co-Supervisor: -Registration/enrolment no: 20210000504 Registration year: 2021-22 Department: Social Work

Topic: Women Handloom Weavers' cooperative societies in Kamrup district Name: Rupjoyti Borgohain Supervisor: Prof. M. GangaBhushan Co-Supervisor: -Registration no/enrolment no : 0120200202 Registration year: 2020-21 Department: Social Work

Topic: Determinants of Purchase intention of eco friendly consumer products. A study on North East India. Name: Sneha Nath Supervisor: Prof. H. Ramananda Singh Co-Supervisior: Dr. Joyeeta Deb Registration no: 0120210059 Registration year: 2021-2022 Department: Business Administration

Topic: Development of Functional Food by Extraction and Microencapsulation bioactive compounds from underutilized crops.
Name: Kasturi Putsy
Supervisor: Dr. Ajita Tiwari
Co-Supervisior: Dr. kshirod K. Dash
Registration no: 20200017293
Registration year: 2021-2022
Department: Agricultural Engineering

Topic: Pratyabhijna, Tantra and Panpsychism: A study of consciousness in Kashmir Saivism.

Name: Dhritisree Das Supervisor: Dr. Munmun Chakraborty Co-Supervisior:--Registration no: 0120200215 Registration year: 2021-2022 Department: Philosophy

INDEPENDENT PROJECT PROPOSAL

1. Project title: Consciousness, Subjective experience, & the Sense of 'I': A Cross-Cultural Study with Special Reference to Advaita Vedanta and Contemporary Analytic Philosophy of Mind.

Amount Sanctioned: 5.00 lakhs
 Agency Sanctioned by: Indian Council of Philosophical Research
 Duration: 3 years
 Principal Investigator: Dr. Munmun Chakroborty, Assistant Professor, Dept of Philosophy, Assam University Silchar

2. Project title: "Functionalization of nutrient -rich food matrices and value addition of Underutilized crops of NE India by Extrusion Cooking Technology"

Amount Sanctioned:

Agency Sanctioned by:

Duration:

Principal Investigator: Dr AJITA TIWARI, Assistant Professor, Dept of Agricultural Engg, TSSOT, Assam University Silchar

3. Project title: Higher Education Institutions and Rural Community Engagement: Study of Mechanisms for Promoting Reformative Rural Community Engagement in Assam

Amount Sanctioned: 7.00 lakhs Agency Sanctioned by: Mahatma Ghandi National Council for Rural Education, Hyderabad Duration: 16 months Principal Investigator: Prof. M Gangabhushan

WORKSHOPS

Report on National handloom day Unlocking Potentials and Elevating Growth of North-East India through Handloom and Handicraft Industry Held on 7th August, 2022

The northeast region of India comprising of the eight states is characterized by multiplicity of culture and tradition. The region is characterized by richness in flora and fauna and enormous natural and scenic beauty. There are almost 145 tribal communities inheriting the region from both hilly and plane areas with their distinct traditional and cultural identity. The different tribes of the region preserve the culture of caring for the environment and this thrust for an ever clean and green environment has inspired the rest of the India as well as other parts of the word o choose the alternatives of handloom, bamboo and other eco-friendly handicraft products. The region exhibits potentialities in exports and making headway towards a self-resilient economy especially in case of handloom and handicraft production. The northeast region of India registers a total of 54% of country's total bamboo production covering over 61 varieties. A variety of handicraft products like bags, decorative ornaments etc are produced from bamboo. Besides, the region is also famous for its production of silk(mugs) sarees. However, much of the regions potentialities remain locked owing to certain bottlenecks and challenges. But the inspiring success stories of entrepreneurs from the different tribal communities of the region reflect potentialities for building up the region in its indigenous way. The eco-friendly handloom and handicraft products set a desired model of business for many countries of the world and with climate action and green initiatives these industries hold strategic importance. In years to come the region being rich in the production of handloom and handicrafts products is likely to become a global hub for such products and businesses. At this juncture it is important to identify the potentialities of the handloom and handicrafts industry as well as the key challenges and possible way out. The proposed seminar addresses this issue. The seminar would also be featured by a handloom exhibition by entrepreneurs/ manufacturer from northeast regions.

Objective of the Workshop:

The main objective of conducting this national seminar was to make people aware of the importance of handloom products and induce in them the beauty of our local products which is not yet gaining much insight. Another objective was to encourage new entrepreneurs in this field so that they can also jointly contribute to the growth of the industry.

Following are the details of the workshop

Chief Patron: Prof. Rajive Mohan Pant, Hon'ble Vice Chancellor Assam University Silchar

Director, Centre for Indian Knowledge Systems (IKS): Prof. Nataraju Adarasupally, Dean S. R. School of Philosophical Studies

National Seminar Coordinator and Convenor : Dr. Joyeeta Deb Associate Professor Dept of Business Administration

Particitants

On this occasion an exhibition was also where 25 weavers were present with their varieties of loomed apparels. The weavers belong to the society- Matrimangal Mahila Samiti (Borjalenga).

Seminar session

The inaugural session started with the inviting of dignitaries to the dias, presided by Prof. Rajive Mohan Pant, Vice Chancellor of Assam University, Silchar, followed by the lighting of lamp and a keynote address by Prof. Abhigyan Bhattacharjee (NEHU, Tura Campus, Meghalaya). The guest of honour Mr. Prosenjit Roy Choudhury, Cachar District Incharge, Swadeshi Jagaran Mancha was invited to the dias and with this the second session commenced.

Planery Session

The planery session consisted of three presentations by Dr. Indu Sharma, Sanjoy Choudhury and Dr. Surajit Sen. In this session, the participants were enlightened with the sustainable eco-friendly handloom and handicraft empowering North East India, the impact of bank erosion and flood on the socio-economic livelihood and culture of the people of Majuli island and also the Ryndia silk of Meghalaya on tourism perspective.

Technical sessions

The technical session-I was chaired by Prof. M. Tineshwori Devi where five (5) papers were presented where the participants got the opportunity to know about the survey analysis of buyers and sellers of handloom products, the buying behaviour towards handicraft products, craft of weaving, supply chain management of handicraft business and educated entrepreneur in Handloom sector and the technical session-II was chaired by Prof. Abhigyan Bhattacharjee where there were four (4) paper presenters who highlighted the background of handloom sector, trade potentialities of handloom and handicraft products in North East India, the present scenario of handloom industry in North East India and also the overview of handloom industry in Manipur. At the end of both the technical sessions- I and II, the valedictory session was held where vote of thanks was given to the different helping hands and it was followed by the distribution of certificates to the paper presenters.











Report on Adapting Urban Infrastructure to climate change One day International Workshop On "Adapting Urban Infrastructure to Climate Change: Indian & International Perspective" 30 September 2022

The one-day international workshop on "Adapting Urban Infrastructure to Climate Change: Indian & International Perspectives", is well structured and covers various aspects on the significant shifts in climate variables projected for the 21st century, coupled with the observed impacts of ongoing extreme weather and climate events, ensures that adaptation to climate change is set to remain a pressing issue for urban areas over the coming decades. This

volume of Progress in Planning seeks to contribute to the widening debate about how the transformation of cities to respond to the changing climate is being understood, managed and achieved. We focus particularly on spatial planning, and building the capacity of this key mechanism for responding to the adaptation imperative in urban areas. The core focus is the outcomes of a collaborative research project, Eco-Cities, undertaken at the University. EcoCities drew upon inter-disciplinary research on climate science, environmental planning and urban design working within a socio-technical framework in their credit nationally and internationally. As it is an important pertinent issue so the awareness and having the knowledge to apply the same to create an innovation driven environment is very important. So, this workshop becomes very important for faculty members, research scholars, scientists and also budding innovators including students.

Objectives and Learning outcomes of the workshop

The workshop was designed to cover by two well accomplished innovation protection specialists, who have impart the overall knowledge of:

- 1. Development of particularly on spatial planning, and building the capacity.
- 2. EcoCities planning and development.
- 3. Urban waste water planning in international context

Following are the details of the workshop

Chief Patron: Prof. Rajive Mohan Pant, Hon'ble Vice Chancellor Assam University Silchar

> Patron: Prof. C.R. Bhattacharjee Dean(I/C) TSSOT Assam University Silchar

Program director: Director, Centre for Indian Knowledge Systems (IKS) Prof. Nataraju Adarasupally, Dean S. R. School of Philosophical Studies Assam University Silchar

- Resource persons: Dr. Theodora Cohen Lucchti, Phd, Engineer, Water Planning Dept, State Bureau of water, State of Geneve Dr. Arunjyoti Nath Dept of Ecology Assam University
- Seminar Coordinator: Dr. Ajita Tiwari HOD(I/C), Asst Professor Dept of Agril. Engg Assam University Silchar

Dr. C.B.Khobragade Asst. Professor,

Nodal Officer(B.Voc) Dept of Agil. Engg, Assam University Silchar

Targeted participant

Faculties, Scientists, SMS, Working in industries, Research scholars and students.

Details of the Experts

The following experts have delivered lectures in the one day national level webinar:

- Resource Persons
- 1. Dr. Theodora Cohen Luechti, PhD, Engineer, Water Planning Department, State Bureau of Water, State of Geneve
- 2. Dr Arunjyoti Nath, Department of Ecology, Assam University Silchar

Photos of workshop









REPORT

Three days' National Workshop on "Indigenous Art & Design Insight" to promote indigenous art practice of Barak Valley Organized by Centre for Indian Knowledge Systems, Assam University In collaboration with Department of Visual Arts, Assam University, SIIchar 9th – 11th November 2022

Indigenous art forms are deeply rooted to the culture and tradition of different communities of India. Hence it is significant to revisit and provide value addition in terms of aesthetics and functionality. According to the researcher *shora* painting was originated in Sureswar village of Bangladesh which has been adopted and mostly practiced by the artisans of the Paul community of Panibhora area Sonai Cachar district of Southern Assam. It can be considered as one of the indigenous art of Barak Valley. It's a traditional art form where artisans draw image of deities on terracotta plates with line drawing and flat colour along with a decorative border. *Shora* painting still exists in some part of West Bengal. This indigenous art practice is gradually fading due to the change in the socio economic objectives of urban as well as in rural life. It is necessary to make continuous efforts to enhance this unique representation of the craft practice instead of pushing it to the threat zone.



Objective of the Workshop:

Many researchers have pointed out that this indigenous art practice is gradually fading due to the change in the socio economic objectives of urban as well as in rural life. To address such issues the conceptualization of this workshop is significant because the main objective of the workshop is to germinate ideas that not only expand the functional possibilities of *shora* art but also to create a connection with the local identity. It will lay a road map for this local craft to be demanded in the global platform.

The basic objectives and Learning outcomes of the workshop

- To explore the possibilities of *shora* painting techniques to incorporate in other design forms and give a contemporary look to this indigenous art form in order to revive this traditional art practice.
- To develop an understanding and appreciation for design, gather a technical knowledge about *shora* painting as a craft that can be a tool for the creative expression of the budding talent with visual arts background, artisans, and young designers.

Following are the details of the workshop

wing are the details of the workshop	
Chief Patron:	Prof. Rajive Mohan Pant,
	Hon'ble Vice
	Chancellor
	Assam
	University
	Silchar
Director, Centre for Indian Knowledge Systems (IKS): P	rof. Nataraju Adarasupally,
	Dean S. R. School of Philosophical Studies
HOD, Department of Visual Arts:	Prof. Nirmal Kanti Roy
Workshop Coordinator:	Mr. Gautam Dutta,
-	Assistant
	Professor
	Department of
	Visual Arts
Co- coordinator:	Dr. Debasish Chakraborty,
	Assistant
	Professor
	Department of
	Visual Arts
Convenor:	Dr. Ganesh Nandi,
	Assistant
	Professor
	Department of
	Visual Arts.

Participant's detail

Mentor	Faculty members, Alumni	13
Young Artist	Ug and Pg and PhD Scholars, Instructor from the Department of Visual Arts	30
	I) Artisans from Paul community of Panibhora area Sonai of Cachar district	06
Artisans	II) Participants recommended by Assam State Rural Livelihoods Mission Society	05
Invited Subject Experts	I) Mr. Ashish Ghosh, Assistant Professor Santiniketan Visva-Bharati University II) Mr. Md. Tarikat Islam, Assistant professor, Drawing and Painting discipline Khulna University, Bangladesh	02
Invited Domain Expert	Dr. Supradip Das, Assistant professor in the Department of Design, IIT Guwahati	01
Total:		57

First Day of the workshop 9th Nov 2022

First session



The event started with the welcome addressand felicitation of the esteemed guests with the lighting up of lamp after that a brief on the concept of the workshop was presented by the coordinator **Mr. Gautam Dutta** Assistant Professor Department of Visual Arts, followed by the speech of the keynote speaker **Dr. Amalendu Bhattacharjee** former Professor of Bengali Department Gurucharan College Silchar, an eminent scholar in the field of traditional art of Barak valley. Vice Chancellor **Prof. Rajive Mohan Pant** and former Vice Chancellor **Prof. Subhas Chandra Saha** graced the occasion. Director, Centre for Indian Knowledge Systems (IKS), Dean S. R. School of Philosophical Studies **Prof. Nataraju Adarasupally** elaborately discussed about the role of Indian Knowledge System in connection with the Indian Philosophical practice and multidisciplinary approach of Indian traditional knowledge in the field of Arts and literature, Agriculture, Basic Sciences. The inauguration programme was concluded with the vote of thanks by the HOD Department of Visual Arts Assam University, Silchar.

First Day Second Session (Brainstorming Session)

Session started with the presentation of **Mr. Ashish Ghosh.** He elaborately explain about the multidimensional approach of design, community based art and craft practice and product functionality. In his presentation he shared few of his products design and give stress to the use of ecofriendly materials for product innovation. **Dr. Supradip Das** in his presentation discoursed about the "scamper acronym" approach for product development. He also shared some important case study relating to traditional toy design and use of bamboo. After that there was a demonstration by both the master craftsman **Shri Gandhi Paul** and **Shri Dinash Paul**. The brainstorming session was ended up with finalizing the design layout of all the participants over a discussion with the experts.



Second Day of the workshop 10th Nov 2022

First and Second Session

All the participant dedicatedly worked on developing the product that are inspired from *shora* painting and explored the shora to develop it further into various utilitarian products. Participants explored different ecofriendly materials like cane, bamboo, jute rope, stone, Paper mache etc. to add aesthetic values to the product. In the second session Md. Tarikat Islam discussed about the historical, cultural and traditional relevancy of shora. In his presentation he showcased the different types based on the style of drawing and visual representation on the *shore*.

Third Day of the workshop 11th Nov 2022

First and Second Session

In the first session of third day participants were dedicatedly worked on their individual design concept on shora to give the final shape to their creation. Around twenty finished product was displayed in the exhibission. Prof. Rajive Mohan Pant, Hon'ble Vice Chancellor visited the department and interacted with the participants to encourage the young talents. In the second session all the product that was created in the workshop were displayed. Hon'ble Vice Chancellor, Prof. Rajive Mohan Pant along with other dignitaries was present in the valedictory programme. The programme was concluded with the vote of thanks by the co-coordinator Dr. Debasish Chakraborty.





CONFERENCES

Two-day International Conference

Topic: "The Quest for Consciousness: Indian and western Philosophical Approaches"

Chief Patron: Prof Rajiv Mohan Pant, Honorable Vice Chancellor, Assam University, Silchar Director: Centre for Indian Knowledge Systems (IKS), Prof. Nataraju Adarasupally, Dean, S. R. School of Philosophical Studies, AUS Conference Coordinator: Dr. Munmun Chakraborty, Assistant Professor, Department of Philosophy, AUS.

> REPORT Two Day International Conference On the theme The Quest for Consciousness: Indian and Western Philosophical Approaches (22nd-23rd August, 2022) Centre for Indian Knowledge Systems (IKS) Assam University, Silchar, India

The inaugural session started with the welcome address of the coordinator of the conference - Dr. Munmun Chakrabborty, Assistant Professor, Department of Philosophy, AUS. She presented the theme of the conference and argued that the quest for consciousness is not new, it has a long history. Particularly, for Indian thinkers, this is not a new affair as it started along with Upanişads. The nature of self or consciousness is the central theme in Upanişads. Even many times Upanişads declare that the study of consciousness or self-inquiry is not only essential but has more importance than any other study and thus conducted an extensive inquiry into our inner subjective world. Hence, this conference aims to see the modern problems of consciousness or subjectivity through the lens of Indian philosophy. In fact, this conference widely discussed and examined all these diverse approaches proposed by different schools and philosophers of Indian traditions and also contributed to enhance the discussion and investigation of contemporary consciousness studies.

Director of the IKS Centre, Assam University, Prof. Adarasupally Nataraju welcomed all the dignitaries on behalf of the Centre. He elaborately discussed the objectives and purpose of the IKS Centre, Assam University. And at the same time, highlighted the significance and necessity of consciousness studies in the contemporary domain. Emphasizing the distinctive viewpoint of K. C. Bhattacharyya in his essay 'Swaraj in Ideas' he explains the difference between cultural subjection and cultural assimilation. He stresses the necessity to make our distinctive estimate and evaluation of foreign philosophy. He continues by saying that the IKS Centre also runs under the same banner where the main purpose is to have distinctive nature and not to have any 'patchwork' or Hybridization of ideas of different cultures. National Director of IKS, Prof. G. S. Murty claims that the quest for consciousness is not only concerned with philosophical debates but also the forefront of where science is growing. He thinks that through philosophical study society can prosper in a more sustainable trajectory and we can also overcome the existential crisis that arises due to technological development. Honorable Vice Chancellor, Prof. Rajiv Pant welcomed all the speakers and guests once again. He affirms that there is one question that we all try to answer – who am I? Are we just physical entities or beyond that? Referring to the Bhagavad Gita he asserts that consciousness is immutable, immovable that cannot be burned, cannot be destroyed. He concluded by saying that the quest for consciousness is on and he is looking forward to learning many things that would enlighten all.

The Keynote speaker Prof. Sangeetha Menon discussed the interdisciplinary insights of consciousness and self and gave a very wide, comprehensive, insightful view of the problem. She has emphasized that there is always a need to address the concept of self and consciousness from multiple perspectives. Consciousness cannot be isolated, it connects us through empathy, love and imagination. It is indigenous and we live in and through consciousness. Consciousness is knowing, living and also being. The inaugural session ended with a vote of thanks from the coordinator – Dr. Munmun Chakraborty.

Day One

Our first speaker of the academic session, respected Prof. Raghunath Ghosh has explored and analyzed the Nyāya & Vaisesika views on consciousness and self. He spoke about the meaning of consciousness and self in Nyāya Vaišesika philosophy. Nyayaikas believe in two types of selves- Paramatma and Jivatma respectively. Both are considered as the locus of cognition or consciousness. He also discussed Guatama and Vatsayana's view regarding the nature of the self where they maintained that the self is not only the locus of cognition but also the locus of other qualities such as- dukha, iccha, sukha, dvesha, raga etc. The phenomenon of apperception is the function of self.

The second speaker, Prof. Alex Watson from Ashoka University, in his paper entitled 'Consciousness as the Only Real Constituent of the Universe: The Argument of Jayanta's Buddhist for Idealism' has examined how the Buddhist speaker in Jayanta's Nyāyamañjarī (890 CE) argues for idealism against direct realism and representationalism.

The third speaker Prof. Chakravarthi Ram-Prasad from Lancaster University, UK, in his paper entitled Self/No-self: An Advaitic analysis of a Contemporary Debate, has explored some ambiguities concerning what it is to affirm or deny the self in Advaita Vedānta. He has analyzed the use of the first-personal 'I' in Advaita, its relationship to the reflexivity of consciousness, and the role that analysis plays simultaneously in the denial of some senses of self and in the affirmation of a more minimal unitary conscious presence. Particularly, Prof. Chakravarthi tried to situate this elusive self between his understanding of Dan Zahavi's notion of the minimal self (Zahavi 2005; 2009) and one reading of the significance of Thomas Metzinger's brief but provocative comparisons of his denial of self with Advaita and Buddhism (Metzinger 2003).

The first speaker of the third academic session, Dr. Shakuntala Bora from Guahati University, in her very interesting paper entitled, Consciousness – What It is and How It is to be Realized (A Study in Tripura Rahasya) has argued that pure consciousness is unknowable but it can be realized by the mind emptied of thought. The mind cleansed of thought is called samadhi. And it is distinguished from sleep.

Dr. Arup Jyoti Sharma from Tripura University, in his paper 'The problem of Alienation and its Overcoming through Phenomenological Development of Consciousness in Hegel' has discussed the problem of alienation and its overcoming considering Hegel's phenomenological growth of consciousness.

Dr. Akoijam Thoibisan from Gauhati University, in her paper, On Sartre's 'Theory of Consciousness: A Phenomenological Study' tries to bring out Sartre's account of the phenomenology of consciousness. She examined Sartre's commitment to phenomenology and the application of the phenomenological method in questioning the transcendental ego.

Prof. P. Milan Khangamcha, from Manipur University, in his talk on 'Physical Brain's Self-awareness as Physical: A Case of Arthantara, has investigated the unwitting affirmation of Sankara's view of pure consciousness by the reductive scientific interpretations of consciousness. He argued that the latest view of Roger Penrose that human intelligence or understanding or consciousness cannot be reduced to a computional process points to this view of Sankara. Vidyaranya's example of "canvas of a painting" (Citra Dipa, Pancadasi) "bare consciousnes" (cinmatra) and the "Light of Theatre" (Nataka Dipa) had anticipated Penrose's favourable view. Hence, what reveals even the best truth of science or mathemetical truths as their bare ground (adhisthaana Matra), the said "unconditioned condition" of them cannot be reduced to the algorithmic or computational functions. Thus, even the scientific theory of consciousness has not yet disproved what Sankara had established as saksi Chaitanya using anvayavyatireki in his avathatraya as the "witness consciousness" underlying every discursive empirical knowledge.

Dr. Pius V Thomas, Head, Dpt. Of Philosophy, AUS, in his very interesting presentation, has tried to answer the question that Do We have a path from the Buddhist Notion of Sunyata to the Concept of Intersubjectivity? He tries to show how to traverse through one of the intersecting paths of the concept of Sunyata and the concept of Intersubjectivity, which would perhaps make us to stand face to face with the ethics of compassion.

Our next speaker, Prof. David Peter Lawrence, from the University of North Dakota, in his presentation on Nondual Śaiva Approaches toward the Critical Interrelation between Consciousness and the Objective World, has claimed that even if the Śaiva philosophy does not solve the "hard problem" of consciousness, it offers critical conceptual tools for the interrelation between the domains of first person consciousness and the third person, empirical world. He further interpreted the relevant Śaiva insights into this Śāktic emanation of the experienced world, in terms of the philosophy of C.S. Peirce and his followers—drawing attention to notions of synechism, tychism, semiosis and agency.

Prof. Sukalyan Sengupta, from University of Massachusetts Dartmouth, in his deliberation has tried to address the question "Is A Definition of Consciousness According to Advaita Vedānta Exclusively Apophatic?"He contends that Advaita Vedānta posits that consciousness (cit or caitanyam) is different from the mind and cannot be objectified; by its very nature it is just the awareness in which objects arise. However, there is also a comprehensive and unambiguous idea of this concept. Moreover, the Vedāntic texts also provide us with the reasons to meditate on Self/pure consciousness and the techniques for the same.

Revered Swami Medhananda ji Maharaj, from Vedanta Society of Southern California, in his talk on Swami Vivekananda's Panentheistic Cosmopsychism has discussed Swami Vivekananda's sophisticated and original solution to the hard problem of consciousness. He argues that Vivekananda's panentheistic cosmopsychism, in the

light of its distinctive features and its potential philosophical advantages over rival theories of consciousness, deserves to be taken seriously by contemporary philosophers of mind and religion.

Prof. Sthaneshwar Timulsinha, from San Diego State University, California, has delivered a talk on 'Consciousness in Trika & Advaita'. He argues that consciousness manifests itself in infinite possibility. There is an inherent dynamism in consciousness and it changes. It is always there, in every being and constant. Consciousness is Self-aware/ svaprakasha and is also Vimarsa, it manifests.

Day Two

Prof. Ravindra Nagendra, from the Centre for Consciousness Studies, NIMHANS, has made a very interesting and thought-provoking presentation on the Neuro-scientific understanding of Consciousness. He affirms that the exploration of the Science of Consciousness is always debated between first- and third-person perspectives. Philosophical schools emphasize first person experience, whereas, neuroscience, attempts to correlate the neural signatures with first-person experiences. However, the concept of consciousness needs a well-defined target that applies to most of the experiences in ordinary states and the target should be non-controversial

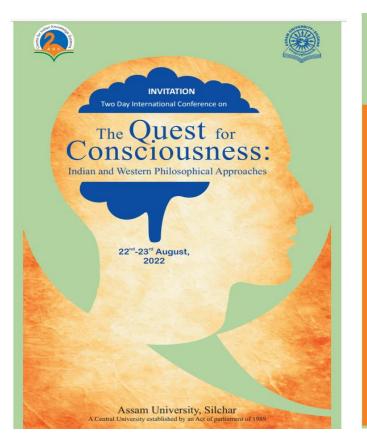
Prof. R. P. Singh, from Centre for Philosophy, JNU, in his presentation entitled NOTION OF ABSOLUTE CONSCIOUSNESS (Whatever is is of the as well as in the Absolute) SANKARA, KANT AND HEGEL, has tried to expound and examine the nature and status of the notion of Absolute Consciousness in the intellectual traditions of the East and the West specifically in the Advaita Vedanta of Śańkara and the absolute idealism of G.W.F.Hegel. He proposes a dialectical dialogue between Śańkara, Kant and Hegel. The subject matter for such a dialogue will center on the notion of Absolute between two cultural contexts i.e. East and West. This comparison does not only imply detecting similarity and distinction, and cataloguing the resemblances between Śańkara and Hegel, but also paving the way for the arguments of one philosopher to pass into those of the other and thus helping the growth of the philosophical heritage.

Retired Prof. Hari Shankar Prasad, from University of Delhi, in his paper entitled, The Problematic Mind, Meditation and the Deep Structure of Consciousness: A Buddhist Perspective, has tried to explain and interpret the three mutually related components – the concept mind, meditation and the deep structure of consciousness – in the process of the mental development in its culmination. He argues that consciousness is a product in Buddhism and has no independent existence.

Next speaker, Dr. Saumya Kanti Biswas, in his paper on Psychology in Mahayana Buddhism: A Special Reference to Nāgārjna's Mādhyamaka, has proposed is a theoretic analysis of the psychology in Buddhism, particularly from the Mahayana perspective, and tries to bring in interpretations of Nāgārjuna's methodological treatment of it. He argues that Nāgārjuna rejects the selfhood but not the self. Dr. Sindhu Pouddyal from Tripura University, in her paper on 'Transcendence of Subjectivity: A Post-humanist approach to the Epistemological-Social Self in Neohumanism of P R Sarkar' tries to explore the development of Advaitic consciousness (both classical and contemporary) in several dimensions in the name of 'transformed subjectivity' bearing a profoundly meaningful approach and rigor. Dr. Bishnu Borah and Dr. Manju Chutia in their joint paper on 'Consciousness and Momentariness: Buddhistic Analysis, have tried to examine the nature of consciousness in the four major schools of Budhism in the light of the theory of momentariness. Dr. Juthika Dev, from M. C. College, Barpeta, in her paper on UNDERSTANDING THE NOTION OF SELF IN THE CONTEXT OF THE GĪTĀ, has made an attempt to examine the concept of self in the Gītā and how it is different from the concept of not-self. Moreover, she tries to find out how the embodied self can transform itself into a state of salvation and can become a liberated self.

Dr. Rajan, in his paper on, Phenomenal Consciousness and Free Will Debate: Sifting Arguments from Illusionism to Compatibilism, argues that the oldest debate of determinism and free will in philosophy is not beyond answering. We just have to answer it more personally and practically, with more of a sense of what we need to believe in to be calmer and more fulfilled. Swaranali Roy Chowdhury, PhD research scholar of the Dept. of Philosophy, AUS, in her paper on Husserl's Concept of Inter-subjectivity: A Search for Consciousness, has tried to look at the hard problem of consciousness from the Husserlian standpoint of inter-subjective nature of consciousness. The attempt is to understand how inter-subjectivity manoeuvres through the hard problem of consciousness, posed by the cognitive scientific understanding of consciousness. Adreeja Sarkar, PhD Scholar of JNU, in her paper entitled, Impersonal Agency and its Moral Implications, has made an attempt to address some questions like -- if self is not constant or diachronic, how would Buddha explain persistence, memory? How impersonality can vouch for persistence quite effectively as well as offer a holistic space for moral talk, moral action and moral responsibility. She argues Buddhism denies a dychronic self or permanent self but not a subject who is a moral agent. Next speaker, Dr. Paramita Chowdhury, guest Faculty of Gauhati University, in her paper on Sankara on Self: An Exploration, has revisited the concept of self in Advaita in terms of Śańkara's analysis of Paňca-kosa and avasthāna traya or the three states of consciousness. Biplab Mallick, PhD research scholar of Ramakrishna Mission Vivekananda Educational and Research Institute, Belur Math, in his paper on, The Sāmkhya theory of Consciousness from the perspective of Swami Hariharananda Aranya, has argued that purusa can be both nitya or eternal and many at the same time. And the last speaker, Arpan Bhattacharya, PhD research scholar of Ramakrishna Mission Vivekananda Educational and Research Institute, Belur Math, in his paper on, The Concept of Individual soul (Jīvātman) in Śuddhādvaita Vedānta, discusses the different accounts of the self or subjectivity in the Śuddhādvaita Vedānta of Sri Vallabhacharya.

Including the keynote address almost twenty-six (26) speakers have presented papers in these two days. Prof. Ramesh C. Pradhan, University of Hyderabad, has delivered the valedictory address. He declares that the quest for consciousness will go on and the conference has successfully addressed the objectives in these two days. The programme was concluded with a vote of thanks proposed by the coordinator Dr. Munmun Chakraborty.









LECTURE SERIES

IKS LECTURE SERIES I

International Yoga Day Celebrations

Invitational Lecture Program ON THE TOPIC: "YOGA AS AHOLISTIC SCIENCE: PAST AND FUTURE" CONCEPT NOTE: Prof. Nataraju Adarasupally SPEAKER: Prof. Bal Ram Singh University of Massachusetts, Darmouth, Boston,USA COORDINATOR: Prof. Nataraju Adarasupally Director, Centre for Indisn Knowledge Systems ORGANIZEDBY: Centre for Indian Knowledge Syststems, Assam University ON: 10th June 2022 6-7:30 pm IST (ONLINE)





Organised by Centre for Indian Knowledge Systems and Sports Board, Assam University

10th June 2022, Time: 6 - 7:30 p.m. IST Online

Concept Note : Prof. Nataraju Adarasupally Inauguration : Prof. Rajive Mohan Pant , Vice Chancellor, Assam University. Chief Guest : Prof. R. P. Tiwari, Vice Chancellor, Punjab Central University.

Speaker



Prof. Bal Ram Singh University of Massachusetts, Dartmouth, Boston, USA President, Institute of Advanced Sciences

Topic

Yoga as a Holistic Science: Past and Future

Coordinator Prof. Nataraju Adarasupally Director, Centre for Indian Knowledge Systems Director, Sports Board, Assam University

Link to join the video meeting: https://meet.google.com/uer-fcbr-qad To join by phone instead, dial (US) +1 551-900-1417 and enter this PIN: 613 673 126# More numbers: https://t.meet/uer-fcbr-qad

YOGA MAHOTSAV 2022

ON THE TOPIC: ONLINE VYAKHAYAN: YOG AUR AATMA-ANUSASHAN Vice chancellor: Prof Sangeeta Srivastav Allahabad University Key note speaker: Prof. Nataraju Adarasupally ORGANIZED BY: Allahabad University ON: 12 june 2022 10:00 am

IKS LECTURE SERIES II

COGNITION (AHAMPRATYAYA) AND SELFILLUMINATION (SVAYAMPRAKĀŚA)." BY: PROF. ALEX WATSON ASHOKA UNIVERSITY **COORDINATOR:** Dr. Munmun Chakraborty हाबाद विश्वविद्याल योग महोत्सव- २०२२ 🖤 लय आनलाइन व्याख्यान : "योग और आत्मानुशासन" 12 जून 2022, (रविवार), प्रातः- 10.00 बजे संरक्षक प्रो. संगीता श्रीवास्तव कुलपति, इलाहाबाद विश्वविद्यालय आमंत्रित अतिथि प्रो. नटराजु अदरासुपल्ली अधिष्ठाता असम विश्वविद्यालय, असम निवेदक : राष्ट्रीय सेवा योजना, इलाहाबाद विश्वविद्यालय सांस्कृतिक समिति, इलाहाबाद विश्वविद्यालय CO-PI CIKS Dept. of Philosophy Assam University **ORGANIZED BY:** Centre for Indian Knowledge Syststems, Assam University **ON:** 7TH NOVEMBER 2022 6:30 PM - 8 PM (ONLINE)

ON THE TOPIC: "IS THE SELF PERCEPTIBLE? MĪMĀMSĀ, NYĀYA AND BUDDHISM ON I-



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SEMINAR PAPER PRESENTATIONS

Seminar tittle: 2nd national Conference on Professional Social Work for Youth Development Topic: Sustainable development goals and the status of maternal health in Assam: A review Organiser: Dept of social work, Rajiv Gandhi National Institute of Youth Development, Sriperumbudur Date: March 25-26 2022 Author: Antara Ghosal

Seminar tittle: National Seminar Cum Exhibition on Unlocking Potentialities and Elevating Growth in North east India through Handloom and Handicrafts Industry. Topic: Handloom sector of Assam: A review Organiser: Centre for Indian Knowledge Systems with Reference to North East Studies, Assam University, Silchar Date: 7 Aug. 2022 Author: Rupjyoti Borgohain

Seminar tittle: Two days National Seminar on "Emerging socio-economic and cultural issues of South-Asian Nations towards developmental journey in the post-colonial era" Topic: Prospects of Development of Trade in North East India with South East Asian Countries: The case of Ecofriendly Handloom and Handicraft Products. Organiser: Department of Economics & IQAC, Women's College, Silchar Date: 25-26 July 2022 Author: Sneha Nath

Seminar tittle: National Seminar Cum Exhibition on Unlocking Potentialities and Elevating Growth in North east India through Handloom and Handicrafts Industry.

Topic: Trade potentiality of Handloom and Handicraft product of North-east India with special reference to south east Asia.

Organiser: Centre for Indian Knowledge Systems with Reference to North East Studies, Assam University, Silchar Date: 7 Aug. 2022

Author: Sneha Nath

BOOKS AND JOURNAL PAPERS PUBLISHED

FUTURE PROJECTS AND EVENTS

WORKSHOP

BRAHMASUTRA From: November 26-December 2 Lucknow Academic Centre, ICPR'S

IKS MELA

From: 12-14 December Coordinator: Ajita Tiwari

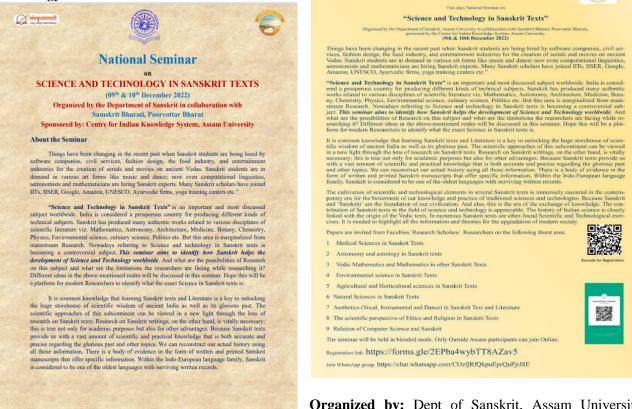
Session 1: 12 December

Panel discussion on different aspects of Indian Knowledge System Session 2: 13 December
Talks on Agri Sustainability by Prof. Bhushan Session 3: 14 December
Discussion on fermentation of food by Dr. Ajita Tewari



SEMINARS

Two Days national seminar on "Science and Technology in Sanskrit Texts"



रास्कृतमारती

Organized by: Dept of Sanskrit, Assam University in collaboration with Sanskrit Bharati, Poorvotar Bhavan

Sponsored by: Centre for Indian Knowledge Syststems, Assam University

ON: 9th and 10th December

LECTURES

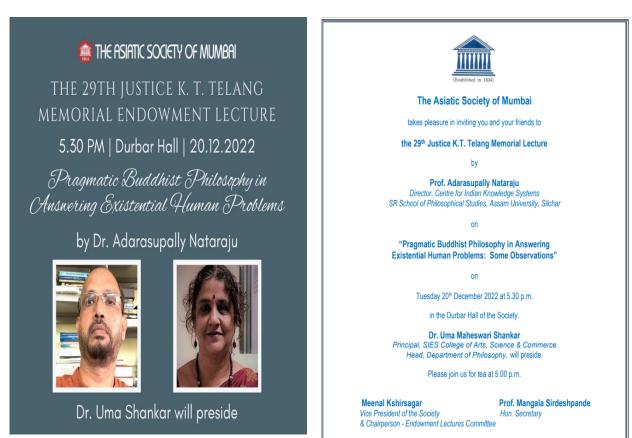
The 29th Justice K.E. Telang memorial endowment lecture

On the topic: Pragamatic Buddhist Philosophy in Answering Existential Human Problems: Some Observations

Organised by: The Asiatic Society of Mumbai

Key note speaker: Prof. Adarasupally Nataraju

Director, Centre for Indian Knowledge Systems, SR School of Philosophical Studies, AUS



BOOKS AND JOURNAL PAPERS TO BE PUBLISED OR IN PRESS

"The Quest for Consciousness: Indian and western Philosophical Approaches" (In Press)

Edited by: Prof. Nataraju Adarasupally

Director, Centre for Indian Knowledge Systems, AUS Assistant Prof. Dr. Munmun Chakraborty Dept. of Philosophy Assam University

Centre for Indian Knowledge Systems

Center for North East Studies-Consciousness, Economy, Agriculture and Food Security.

PI: Prof. Nataraju Adarasupally,

Dean, Dr. S. Radhakrishnan School of Philosophical Studies, Assam University.

Over View of the Project: By selecting four themes with specific objectives and outcomes, this center aims to educate and mentor research activities related to Indian Knowledge Systems in the North East India. Except Indian

Consciousness Studies, the remaining three themes are directly related to North East India centered. The inter disciplinary approach, and collaboration is the strength of this center. There are four co-PIs from four different departments to bring their expertise and research to work for this center and also fulfil IKS mission. We also aim to collaborate with other North East universities to promote more project proposals from faculty and research scholars. Publication of books, research papers and articles is the priority.

Contribution to the IKS Mission: By developing mechanisms to educate and mentor in four different themes from the IKS division, this center fulfils the mandate of promoting inter disciplinary and transdisciplinary research in Indian Knowledge systems.

Justification: Being placed in the heart of North East India, Assam University would act as a catalyst in promoting Indian Knowledge Systems with special reference to N-E India. We bring in the expertise of conducting research for the last two decades, and also the experience of handling major projects.

Four Themes of the Project:

Theme-I: New Approaches to doing Indian Theories of Consciousness

Prof. Nataraju Adarasupally

Dean, Sarvepalli Radhakrishnan School of Philosophical Studies, Assam University And

Dr. Munmun Chakraborty, Assistant Professor, Dept. of Philosophy, AU.

Indian philosophy is, generally, presented in the language of Kant, Hegel or Husserl. The challenge before us is: Can we reverse this model of doing Indian philosophy? Can we Understand and present the western philosophies in the language and conceptual framework of Indian traditions, may be that of the Nyāya or the Vedānta?. This does not mean distorting the philosophies of Kant or Husserl, but to creatively interpret them, and there by improvise the domain of knowledge. Instantly, two names of Indian philosophers come to my mind. One is K.C. Bhattacharya who appropriates Kant's philosophy and creatively interprets it using an Indian language, and also using terminology and concepts from Vedānta tradition. The second philosopher following this *'New Approach'* in doing Indian Philosophy is R. Balasubramanian. He would interpret, more often than not, Husserl or Sartre in the language of Advaita Vedanta.

Objectives: 1. The focus of the project would be to explore this 'new approach' of doing Indian philosophy as developed and perfected by KCB and RB.

2. To find how Indian understanding can contribute to contemporary consciousness studies and enables us to have a better comprehension of the hard problem of consciousness.

Justification and Outcomes: A) Generally, Indian theories of knowledge or theories of Reality are presented in the language of a Husserl or a Kant or a Heidegger (Mohanty,2011). The methodologies are, needless to say, western. The inadequacies in Indian epistemological, metaphysical or moral theories are presented in the language of dominant western theories. This model of doing philosophy is

largely followed by academia in India. I am not entering in to a debate on the merits of such an approach. I would only try to show in this project a radically different approach 'new approach' by some of the contemporary Indian thinkers.

R. Balasubramanian, in several interactions that I had with him, spoke of this 'new approach'. He was of the opinion that those working on different areas in Indian Philosophy need to present western philosophical theories in the language of Vedanta, Nyāya or any other Indian school of thought. In the process, we appropriate and improvise the theories of Husserl, Kant or Hegel, there by enriching the domain of knowledge. In contemporary times, it is observed that academia in India is so overwhelmed by western models of doing philosophy that they pay scant respect for the Indian schools. The schools of Indian philosophy are frozen moulds dead only to be buried. This paper attempts to set things in proper perspective. 'Advaita drśti' or 'Nyāya drsti' or some other is adopted to look closely at different western theories. "This requires that we read the great western philosophies such as Kant's, but understand him in the conceptual framework handed down by the Indian traditions. But how do we do that?

B) One of the key concerns of the present era is to explore and understand the subjective inner experience or the nature of consciousness. While modern science has shown its immense expertise in unfolding the nature of the external world, the inner world has remained a mysterious domain so far. It is only from the beginning of the 20th century Western philosophers, cognitive scientists, psychologists and others have become anxious in investigating this inner private world. However, this is not a new affair for Indian thinkers. For Indian philosophers, the understanding of the inner world is equally significant along with the external empirical world. In fact, many times Upanişads consider self-inquiry as more important than any other study and thus have been explaining and analyzing our subjective private experience over the centuries.

There are certain crucial questions that philosophers and cognitive scientists have tried to answer from the last few decades – What is the nature or the structure of consciousness? How can it be differentiated and apprehended? How does consciousness pervade the mind and the body? What is the correlation between the subjective inner experience and the physical body? Why does the immaterial mind appear conscious? etc. It is interesting to note while modern philosophers have become restless to find out a satisfactory answer for these questions, our ancient philosophers and the Upanişads have addressed these questions around three thousand years before. And, thus what is quite popular as a 'hard problem of consciousness' today, is hardly a concern for these ancient Indian thinkers.

It is herein, a detailed examination of the nature of consciousness as developed by the major schools of Indian philosophy like Vedanta, Sārhkhya, Buddhism and Nyāya have become imperative. The sole reason that makes Indian understanding unique is that they never try to objectify consciousness. To put it differently, what is the subject of experience, according to Advaitins, cannot be the object or known. Hence, any attempt to describe this subjective inner experience with the same method is not only insufficient but also fails to unfold its essential nature. Indian philosophers have strongly challenged this objectivistic approach adopted by the modern philosophers as it reduces the uniqueness and the fundamental nature of consciousness. And, at the same time, it would analyze how Indian understanding can contribute to contemporary consciousness studies and enable us to have a better comprehension of the hard problem of consciousness.

Education and Mentoring plan: At least two Ph.D. research students would be encouraged to do their research in this area. Already two Ph.D. theses are submitted by the students. 10 P.G. students will be given project works in the two years. Faculty mentoring will be taken care of.

Timelines: First year, mapping of the contribution of Indian thinkers to consciousness studies, including Sankara and Ramanuja. Contemporary Indian studies on the hard problem of consciousness and how we can join the international debate on the subject. Conduct of workshop and a seminar.

Mentoring students to do projects in the said area. Second year, syllabus revision at P.G. level. Ph.D. proposals. Publication of two books and 4 papers.

Expertise: Prof. Nataraju Adarasupally was UGC-SAP-DRS I coordinator for the last six years, project budget was 56 lakhs. He has completed a major research project on Vedanta and consciousness studies, he has successfully guided two Ph.D. works in this area. Dr. Munmun has done her Ph.D. in consciousness studies. Several publication in this area, and two books from Bloomsbury on consciousness. 20 years of teaching experience and administrative experience as well.

Theme-II

Indigenous Models of Sustainable Rural Food Sovereignty in North East India

Prof. Molankal Gangabhushan, Department of Social Work, Assam University.

India is ranked at 71st position in the Global Food Security (GFS) Index 2021 of 113 countries, based on the factors of affordability, availability, quality and safety, and natural resources and resilience. It considers 58 unique food security indicators including income and economic inequality – calling attention to systemic gaps and actions needed to accelerate progress toward United Nations Sustainable Development Goal of Zero Hunger by 2030. This involves promoting sustainable agricultural practices, supporting small-scale farmers and equal access to land, technology and markets. This necessitates the need for exploring and strengthening climate change adaptive practices.

World Bank (1998) points out that indigenous practises can adapt in response to gradual changes in the social and natural environment since they are interwoven with peoples' cultural values, however they cannot adapt to rapid changes. Indigenous knowledge has been used for centuries by indigenous and local communities under customary laws, customs and traditions. IK is not just a compilation of facts drawn from local and remote environment, but a complex and sophisticated system of knowledge drawn from centuries of experience, testing and wisdom of local people. Myer (2000) notes that as the pressures on traditional and indigenous community's mount, the search for effective forms of documentation to support the preservation and transmission of IK is becoming increasingly urgent.

Research Context

The agrarian economy of North Eastern Region is endowed with natural resources, such as agro- horticultural and forest resources, with over 70 per cent of the population engaged in agriculture for livelihood. The nature of terrain and soil conditions have given rise to two distinct types of agricultural practices: (i) settled agriculture in the plains, valleys and gentler slopes, and (ii) slash and burn ('jhum' in local parlance) elsewhere. Jhumming is the dominant agricultural practice in the hilly states of Arunachal Pradesh, Meghalaya, Mizoram and Nagaland. Food crops, largely consisting of cereals, pulses and oil seeds, with rice getting primacy over other crops, dominate the cropping pattern in the region. States like Manipur and Nagaland have 85 per cent of the cultivated area devoted to food crops. The states of Assam, Sikkim and Tripura have moderately high concentration of food crops while oilseeds, fibre and plantation crops are grown in vast areas. Meghalaya is the only state with low concentration of food crops and where horticulture crops dominate owing to the terrain and climatic conditions. Sikkim has been the forerunner in organic agriculture in the country.

OBJECTIVES AND TIMELINES

- To explore and identify indigenous Knowledge systems and practices for food sovereignty in North East India.
- To analyse the factors having potential to improve household food security & challenges faced.

PROJECT INTELLECTUAL MERIT:

The rapid growth in agricultural productivity since the 1960s has underpinned the development of the current global food system that is both a major driver of climate change, and increasingly vulnerable to it (from production, transport, and market activities) (FAO 2018). In view of the increasing vulnerabilities, there is an urgent need to promote food sovereignty, by way of recognizing the people's indigenous knowledge on their own food cultivation and food security practices.

IMPLICATIONS:

The proposed research will be carried out to establish the contribution of Indigenous Knowledge in preserving the methods of food security in North East India. The rational of the project is not only to document the factors influencing the use of indigenous practices and technologies in enhancing household food security, but also to find out the limiting factors to the use of indigenous knowledge in enhancing food security. The study will lead to:

- 1. Popularisation of the indigenous knowledge on sustainable agriculture and food sovereignty,
- 2. Build linkages with line agencies for further strengthening the indigenous models of food preservation.
- 3. Creating common platforms that will enhance the community knowledge and skills on sustainable food production & reduce food insecurity.
- 4. Foster environmentally friendly initiatives for community based resilience to climatic shocks.

PROCEDURE

This research project will use mixed method approach to collect data.

- 1. All the North Eastern states will be studied by taking 7 blocks as samples using stratified sampling technique.
- 2. From each block one village will be purposively selected to interview 50 families from each village.
- 3. Participatory baseline survey and PRA method will be used to collect the information using a structured interview schedule.

EDUCATION PLAN:

Information and lessons learnt from the project will be documented and reporting will be done quarterly. Review workshops will be held at village and block levels with participation from farmers, researchers, NGOs, and public extension worker. Documentary shows on how farmers are involved in the food security initiatives using indigenous knowledge. This will further promote dialogues with the neighbourhood communities as the way forward for best practices. Publication of the research findings in the national and internal journals of repute.

PROJECT TEAM EXPERTISE:

The project team members have expertise in research and intervention in the sub themes chosen.

TIMELINES

Month Activity	1 to 3	4 to 6		7 to 9		10 to 12		13 to 18		18 to 24	
Preparation of Schedule											
Review of Literature											
Pilot study											
Data Collection											
Data Analysis, publication											
Report Writing											

REFERENCES-

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- 3. Myrdal, Gunnar. (1968). *Asian Drama: An Enquiry into the Poverty of Nations*. California: The Penguin Press.
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Theme-III

Indigenous Knowledge Practices in Trade and Commerce in North East India Dr. Joyeeta Deb, Assistant Professor, MBA, AU.

The north east region of India comprising of the eight states is characterized by multiplicity of culture and tradition. The region is characterized by richness in flora and fauna and enormous natural and scenic beauty. Being surrounded by bordering countries of South East Asia, the region exhibits huge trade potentialities. There are almost 145 tribal communities inheriting the region from both hilly and plane areas with their distinct traditional and cultural identity. The region is rich in indigenous knowledge which is widely practiced in trade and commerce. Manipur, for example is becoming increasingly famous for its community based cluster marketing which is followed as a traditional way of marketing being inculcated with the spirit of mutual and community wellbeing over years. Besides, the different tribes of the region preserve the culture of caring for the environment and this thrust for an ever clean and green environment has inspired the rest of the world as well as other parts of the world to choose the alternatives of handloom, bamboo and eco-friendly handicraft products. North East India finds a significant place in the export basket for utensils, furniture, jewellery and home décor items made of cane, bamboo and jute. Almost all the states of north east have the mastery of making eco-friendly products. Thus, the region has its own way of flourishing trade through the practice of its indigenous knowledge. However, it is important to theorize such practices through some formal business models which can be emulated by the rest of the country and world. Thus, extensive research is required to come up with a few such models.

Given the backdrop it is important to highlight that although the region exhibits potentialities in exports and making headway towards a self-resilient economy, but much of the region's potentialities remain locked owing to certain bottlenecks and challenges. But the inspiring success stories of entrepreneurs from the different tribal communities of the region reflect potentialities for building up the region in its indigenous way. The eco-friendly handloom and handicraft products set a desired model of business for many countries of the world and with climate action and green initiatives these industries hold strategic importance and in years to come the region, being rich in the production of handloom and handicraft products, are likely to become a global hub for such products and businesses. At this hour it is imperative to bring these eco-friendly handloom and handicraft industries to the forefront so that they exhibit performance to their fullest potentiality. Thus the proposed study is intended to attain the following objectives:

1. To assess the export potentialities of the indigenous knowledge based eco-friendly handloom and handicraft industries in north eastern region of India and suggest strategies to unlock these potentialities through suitable policy measures.

2. To make an objective and holistic estimation of efficiency of firms engaged in handloom and handicraft industry and ascertaining the potentials for improvement in efficiency.

The above objectives would be attained through a comprehensive research framework.

Expected Outcome of the Study:

The study is expected to be the first of its kind to cover the eco- friendly handloom and handicraft industry. Currently the government initiative of setting up of Border Haats and the exclusion of bamboo from the definition of tree are expected to flourish the markets for such products and elevate exports with the bordering countries. However some of the obstacles are to be tackled strategically so that the desired results are attained. Deriving the key challenges of the export oriented eco-friendly handloom and handicraft industries in north east region based on data from different agencies.

The probable challenges that are to be addressed are

- (a) Marketing Challenges, Financial Challenges
- (b) Technological and Innovation Related Challenges
- (c) Resource Drain, Competition, Moral hazards

Suitable strategies along with a successful business model shall be developed for the Industries. These would address possibility of incorporation of innovative strategies like-

- (a) Cluster Marketing, Branding
- (b) Incorporating indigenous business knowledge of the region in the syllabi of academic institutions.
- (c) Backward and Forward Integration, Fostering and nurturing Self- help group etc

The results would give a ready reference and cover the following

- (a) Cost efficiency of firms, Allocative efficiency of firms
- (b) Technical efficiency of firms
- (c) Export efficiency of firms, Productivity change. And Publication of books.

Theme-IV.

Enhanced Nutritional Security and Food Sustainability through Traditional Fermented Foods of North East India.

Dr. Ajita Tiwari, Assistant Professor, Agricultural Engineering, AU.

Overview of the project: North Eastern part of India is a home to many rich indigenous plant produces. Many underutilized parts of plants have been discovered and consumed by tribal and folk communities of various forest regions of India, but lacks scientific information on the health, nutritional, pharmacognostical, phytopharmacological benefits of these underutilized parts. Different fermented foods of north east India like Marcha, Koozh, Rai, Kanjika etc are rich source of lactic acid bacteria and have significant health benefits. Bodoland area of Assam is part of north eastern region of Himalayas which is a rich hub of biodiversity and abundance of natural flora and fauna. The Bodos are aboriginal inhabitant of north east part of India and they have ethnic fermented beverage named "Zumai" (rice based and flavoured with local herbs) and food called "Napham" (leafy vegetable and smoked fish fermented in sealed bamboo cylinder). The indigenous recipes of Bodos may be wealthy source of laticc acid bacteria with bio-preservant probic atributes which are yet to be explored. Lactic acid bacteria are used as starter culture in different fermented foods and beverages. They also constitute the natural intestinal microbiota and contribute a number of health benefits for well-being of the host. Probiotics are

defined as live microorganisms which, when consumed in adequate numbers, beneficially affect the host and provide several health benefits. Hurdle technology is a concept where viability and proliferation of microbes are decreased significantly by confronting them with multiple and microbial factors which may act on same cellular targets. Cells require much more energy for multiple damage repairs and eventually face energy exhaustion and death. Addition of bacteriocins as a part in "Hurdles" will decrease the extent of separate hurdles.

Contribution to the IKS Mission: The project is perceived as a techno-rural-action plan which blends transformative rural technologies with modern scientific advancements that could provide viable options for improving and conserving yield potential of high value traditional fermented food.

Justification: Poor access to appropriate technology due to difficult topography and tough mountain conditions is one of the major causes of probity, drudgery and natural resource degradation in the north east India. Technology change is an important instrument in the continuous process of socio-economic development. Comparison to other part of the country, population density in the north east India shows it to be less and most of the land is unutilized. **Objectives:**

- Identification of high value wild medicinal and aromatic plants of food, pharmaceutical and nutraceutical importance through Participatory Rural Appraisal (PRA) in the north east India.
- Development of value chain management strategies for these high value aromatic and medicinal plant species keeping socio-economic development of local tribalpeople
- Exploration of potential probiotic attributes and bioprotective potential of bacteriocin for application in food preservation

Project Intellectual merit:

- 1. Development of package of practice, post-harvest, processing and value addition techniques for these aromatic and medicinal plant species.
- 2. Development of value chain management strategies for these high value aromatic and medicinal plant species keeping socio-economic development of local tribalpeople.
- 3.Impact assessment of biodiversity conservation on socio-economic development and livelihood options of the local population.

Project broader impacts: Lactic acid bacteria have been found to have probiotic attributes which facilitate the host by providing intestinal integrity, stimulating digestion and other metabolic activity, reducing gastrointestinal upset due to antibiotic treatment etc. Besides lactic acid bacteria are well known for producing specialized antimicrobial agents like bacteriocins. Probiotics heal gastrointestinal disorder by maintaining microbial balance and competitively inhibiting undesired microbes. Numerous probiotic functional foods are commercially available to beneficiate consumers' health. Besides, application of bacteriocins in food preservation to extend shelf-life and reduce extent of chemical preservative is a prospective issue.

Outputs and outcomes of the proposal:

The traditional fermented food and beverage of north east India are rich source of potent lactic acid bacteria. The fermented food and beverage of Bodos, named, "Napham" and "Zumai" are least explored. From these indigenous recipes, potent lactic acid strains with probiotic and anti-microbial properties may be screened. The proposed study aims to isolate novel strain(s) from these ethnic food and beverage. The isolated lactic acid strain(s) may have the following important probiotic aspects:

i) Tolerance to harsh acidic condition (low pH of stomach) and slight alkaline condition (pH of small intestine).ii)Survival of isolate(s) in digestive enzymes and bile salts indicating tolerance to oral-gastrocintestinal system.

Motivation of people's participation in fermented food development, management and conservation by iii) domestication of many wildly collected medicinal and aromatic plant species in the north east India is another expected deliverable at the end of the project.

Procedures: A survey work will be done in market and village hut of nearby areas to know about fermented food & beverages of indigenous people. The collection of samples will be initiated in the work, from these indigenous recipes, potent lactic acid strains with probiotic and anti-microbial properties may be screened and the value chain management including isolation of bacteria etc.

Education plan: By introducing the potential strength of the indigenous fermented food and their diverse variety of health benefits to host and hence have potent applications in functional food.

Mentoring plan: Through Undergraduate, Postgraduate and PhD students. Some younger faculty would be encouraged to submit project proposals in this area.

Communication Dissemination plan:

- 1. Development of community based processing enterprise in the project sites.
- 2. Organization of local Trade Fair and 'Mela' for creating awareness and promotion of local high value products in the regions.
- 3. Organization of conservation education and trainingprograms.
- 4. Organization of workshops and hands-on training programs in the TIC. Establishment of direct linkages between private agencies and the local tribes for creating sustainable marketing network in the project sites.

Project team expertise: Several Undergraduate and post graduated projects with the supporting results have been taken care and presented under the undersigned.

Period of study	Achievable targets The PRA survey will develop an information database of the different traditional fermented foods. The information will be collected through formal and informal discussion with the people of the nearby place of NE India. The survey will also support to identify the indigenous knowledge based methodologies for preparation, processing, value addition and marketing of these.								
6 Months									
2 Months	Development of value chain management with scientific approach								
8 Months	 Isolation of bacteriocin producing probiotic microbial species Screening based on bacteriocin production, resistance to antibiotic,tolerance to acidic pH, lysozyme, gastric juice, intestinal fluid Selection and identification of strain(s) Characterization of isolate(s) as probiotic 								
4 Months	sustainable utilization of the high traditional fermented foods into various								
nces:	high value commercial products in collaboration with local grassroot								

Timelines:

1 1

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Summary of the Proposal:

SPECIFIC ROLES OF CO-PI(S)

The Co PIs of the Department of Social Work, Agricultural Engineering, MBA and Philosophy are well versed with the qualitative and quantitative research skills to explore and elucidate the pertinent information on indigenous knowledge and execute plan of action to intervene to meet the recommendations of the research outcome. Mentoring, educating and encouraging faculty to be part of IKS mission. Conduct of Workshops and Seminars. Education and Mentoring.

TIMELINES

Month Activity	1 to 3	4 to 6 7		7 to 9		10 to 16		17 to 20		20 to 24	
Preparation of Schedule, Workshop, seminar, Books, equipment.											
Review of Literature, research, education and outreach activities. publication											
Pilot study, Workshops for faculty, submission of project proposals.											
Data Collection, Faculty mentoring, Students Internship. publications											
Data Analysis, Outcomes, IKS mission fulfilment.											
Report Writing, further proposals, collaboration.											

Training and Mentoring of Interns, and Faculty Development Programs: We propose summer school every year to cater to the needs of the inters and other students from colleges and universities. We also try to introduce around 10 Ph.D. research projects in the four themes mentioned above. There are plans to publish 04 books and around 20 research papers during this period. Faculty training and mentoring will be taken care by organising workshops and seminars every year. Publication of Books and Journal Papers will be the priority.

Strengths of the Proposal: This center has the involvement of different departments and is focusing on North East Studies. Apart from consciousness studies, three themes are related to traditional indigenous knowledge related to food security, commerce, and fermented foods of the people of Assam, Manipur, Meghalaya and Mizoram and other states.

Financial Support: We are reaching out to Indic Academy, Hyderabad for financial support, and Assam University is equally willing to provide some percentage of matching grant.

Summary: Four Themes are selected to conduct research, educate and mentor. The first one is about Indian theories on consciousness and the remaining three focus on North East Studies with reference to Commerce, food security and fermented foods. All are based on indigenous knowledge systems of people of North East India. This center can act as a catalyst in educating and mentoring young research scholars and faculty in the North eastern universities, thereby fulfilling the IKS mission.

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