







# A Report on

### **National Seminar**

### On

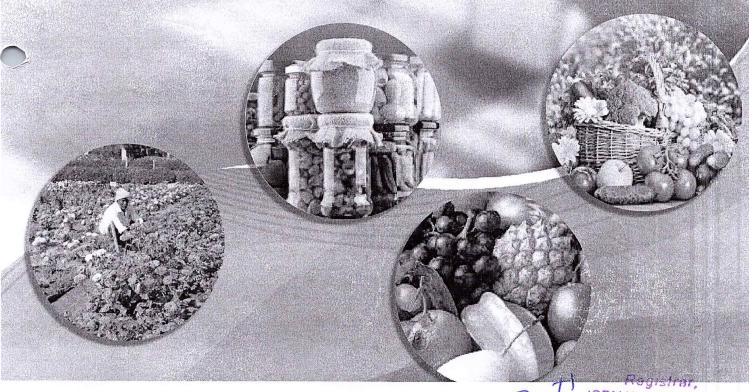
"Growing Greener - Strengthening Horticulture through Innovations, Sustainability, and Market Access"

> 19th March, 2024 Organized By

# FACULTY OF MANAGEMENT AND COMMERCE ICFAI University Tripura

In Collaboration With

# NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT(NABARD)



ICFAI University Tripura Kamalghat, Tripura (West)

## **CONTENTS**

Sl No	Particulars		
1	Brief Report		
2	Program Schedule		
3	List of contributors		
4	Proposed interventions for the Horticultural Sector in Tripura		
5	Action Point for development of the for Horticultural Sector in Tripura		
6	Strategies recommendation for Horticultural Sector in Tripura		
7	Action Point and Strategic Recommendation of Technical Session 1 on the theme of "Growing Greener – Strengthening Horticulture through innovations, Sustainability, and Market Access"		
8	Action Point and Strategic Recommendation of Technical Session 2 on the theme of "Growing Greener – Strengthening Horticulture through innovations, Sustainability, and Market Access"		
9	Attendance		
10	Organizing Committee Details		
11	Notice		
12	Photo Gallery		
13	Press Release		



### **Brief Report**

National Seminar on "Growing Greener - Strengthening Horticulture through Innovations, Sustainability, and Market Access" on March 19, 2024 at the ICFAI University Tripura, Kamalghat, Agartala, Pin-799210

Faculty of Management & Commerce of the ICFAI University, Tripura in collaboration with NABARD Tripura hosted a National Seminar on "Growing Greener Strengthening Horticulture through Innovations, Sustainability, and Market Access" at University Campus, on 19th March, 2024. The seminar was inaugurated by Dr. Umesh Thapa, Professor, Faculty of Horticulture & Former Director of Extension Education, BCKV, West Bengal as Chief Guest, Dr. Biswaiit Das, Principal Scientist, ICAR Research Complex for NEH-Tripura Centre as the Special Guest and Honour Mr. Loken Das, General Manager, NABARD-Agartala as Guest of Honour. Welcome address given by Dr. A Ranganath, Registrar, ICFAI University Tripura. The Faculty members and Research scholars from various institutions including ICFAI University Tripura were presented research papers. A Special paper presentation on "Low cost technologies for entrepreneurship development through selected potential horticultural crops: a startup approach" by Dr. Thingreingam Irenaeus K.S, Assistant Professor, Department of Horticulture, College of Agriculture Tripura, India. Simultaneously an exhibition cum sale programme also organized in the open auditorium complex of the University for the rural artisans of Tripura who exhibited and sold various horticulture items. Around 100 numbers of participants from renowned organizations like UBKV, J.B College, University of Delhi, Central Agricultural University, College of Agriculture Tripura, Nagaland University, Mizoram University, University of Gour-Banga, ICAR, NABARD etc. throughout the country have participated in the National Seminar. The seminar was coordinated by Dr. Mamoni Kalita, Associate Professor, Dr. Soumitra Sankar Das, Dr. Sujoy Hazari, Dr. Trinankur Dey, Prof. Tamladipta Sen & Dr. Pradip Chouhan, Assistant Professors of the ICFAI University Tripura. The University extends its heartiest thanks to all concerned for successful completion of the seminar.



Registrar, ICFAI University Tripura Kamalghat, Tripure (Wesn











# FACULTY OF MANAGEMENT AND COMMERCE ICFAI UNIVERSITY TRIPURA

## Presents National Seminar

on

"Growing Greener - Strengthening Horticulture through Innovations, Sustainability, and Market Access"

In collaboration with

NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT (NABARD) (19th March, 2024)

### PROGRAMME SCHEDULE

Time	Particulars				
	Inaugural Ceremony (Auditorium)				
09:00-10:00	Registration				
10:00-10:05	Welcoming the Guests to the Dias				
10:05-10:10					
10:10-10:15	Lighting of the Lamp				
10:15-10:30	Welcome Address by <b>Dr. A Ranganath</b> , Registrar, ICFAI University Tripura				
10:30-10:40	Keynote Address by <b>Dr. Biswajit Das</b> , Principal Scientist (Horticulture), ICAR Research Complex for NEH Region, Tripura Centre. (Special Guest)				
10:40-11:10	Address by Guest of Honour Mr. Loken Das, General Manager, NABARD, RO Agartala				
11:10-11:40	Address by Chief Guest - <b>Dr. Umesh Thapa</b> , Ph.D , Post -Doc (Italy), Professor, Faculty of Horticulture, & Former Director of Extension Education, Bidhan Chandra Krishi Viswavidyalaya, West Bengal, India				
11:40-11:45	Vote of Thanks by <b>Dr. Soumitra Sankar Das</b> , Convener of Seminar & Assistant Professor, Assistant Professor, FMC, ICFAI University Tripura				
11:45-12:05	Special paper presentation on "Low cost technologies for entrepreneurship development through selected potential horticultural crops: a startup approach" by Dr. Thingreingam Irenaeus K.S., Assistant Professor, Department of Horticulture, College of Agriculture, Lembucherra, Tripura, India.				
12:05-12:15	Tea Break				
12:15- 02.30	Technical Session I & II				
02.30-03.30	LUNCH BREAK				
03:30-04:30	Technical Session – I & II Contd.				
	Valedictory Ceremony (Auditorium)				
04:30-04:40	Welcoming Guests to Dias				
04:40-04:50	Valedictory Speech by <b>Dr. Sujit Deb</b> , Dean, Faculty of Management and Commerce, IUT				
04:50-05:00	Address by <b>Prof. (Dr.) Subhasish Chatterjee</b> , Dean –Academic Affairs and Director – IQAC, ICFAI University Tripura				
05:00-05:10	Address by Special Guest Mr. Diganta Kumar Das, DGM, NABARD RO Agartala				
05:10-05:20	Special address by the Chief Guest/ Chairpersons on the paper presenter				
05:20-05:25	Vote of Thanks by Dr. Mamoni Kalita, Joint convener, & Associate Professor, ICFAI University Tripura				
05:25-06:00	Distribution of certificate and photography session				
	End of the Programme				

LOFAI University Tripura Kamalghat, Tripura (West)

### List of Contributors

Sl no.	Name and Designation
1	A. Ghosh, Department of Agricultural Statistics, Uttar Banga Krishi
	Viswavidyalaya, Pundibari, and West Bengal
2	Abhishek Sen, Department of Soil Science & Agricultural Chemistry, Uttar Banga
	Krishi Viswavidyalaya, Pundibari, West Bengal
3	Akash Das, Research Scholar, Faculty of Management and Commerce, ICFAI
	University Tripura
4	Anamika Debnath, Project Assistant, Faculty of Management & Commerce,
	ICFAI University, Tripura
5	Animesh Bhattacharjee, Assistant Professor, Faculty of Management &
	Commerce, ICFAI University, Tripura
6	Annesha Saha, Associate Professor, Faculty of Management & Commerce, The
	ICFAI University, Tripura.
7	Ardhendu Chakraborty, Subject Matter Specialist, KrishiVigyanKendra,
	Khowai, Tripura, India
8	Ayan Sarkar, Agril. Consultant
9	Balveer Singh, Faculty of Agriculture, Rabindranath Tagore University, Chiklod
10	Road, Near Bangrasia Chouraha, Raisen, (M.P.)  Banani Das, Department of Agricultural Economics, College of Agriculture,
10	Tripura, Lembucherra, Tripura
11	Banjit Deka, Research Scholar, J.B College (Autonomous)
12	Bappa Paramanik, DDKVK, Uttar Banga Krishi Viswavidyalaya, Dakshin
12	Dinajpur, West Bengal
13	Bhupendra Nath Dutta, Assistant Professor (Dept. of Commerce), Smriti
13	Mahavidyalaya, Purba-Burdwan, West-Bengal
14	Bimal Das, College of Agriculture, Uttar Banga Krishi Viswavidyalaya, Dakshin
	Dinajpur, West Bengal
15	Bishwajit Baishya, Research Scholar, Assam Down Town University
16	Buddhisatya Dowarah, Ph.D Scholar, Department of Horticulture, School of
	Agricultural Sciences, Nagaland University
17	Budhachandra Thangjam, Assistant Professor, Department of Entomology,
	College of Agriculture, Lembucherra, Tripura, India
18	C. K. Panda, Dept. of Extension Education, BAU, Sabour
19	D. Mukhopadhyay, Department of Soil Science & Agricultural Chemistry, Uttar
	Banga Krishi Viswavidyalaya, Pundibari, West Bengal
20	D. Sen, Department of Agronomy, College of Agriculture Tripura, Lembucherra,
	West Tripura
21	Debadrita Dev, Research Scholar. Faculty of Management & Commerce, The
	ICFAI University Tripura
22	Debashish Sen, Principal, College of Agriculture, Tripura
23	Debasmita Sil, Research Scholar, M.Sc (Vegetable Sciences, Department of
24	Horticulture), College of Agriculture, Tripura
24	Dhananjoy Datta, Professor. Faculty of Management & Commerce, and Dean –
25	Research & Development, ICFAI University Tripura
25	Dipak Kumar Baidya, Deputy Director, Department of Agriculture, Agartala,
	Tripura (West)

26	Dipak Kumar Murmu, Regional Research Station (OAZ), Uttar Banga Krishi
	Viswavidyalaya, Dakshin Dinajpur, West Bengal
27	Dipalok Bhattacharjee, Growing Seed Organization, Dharmanagar North
20	Tripura  Dipankar Dey, Subject Matter Specialist, KrishiVigyanKendra, Khowai, Tripura,
28	India
29	Gokul Acharjee, Associate Professor, Faculty of Management & Commerce,
	ICFAI University, Tripura
30	Helen Soibam, AICRP on Medicinal and Aromatic Plants, Central Agricultural
	University, Imphal, Manipur, India
31	Ivi Chakarborty, Department of Post Harvest Management, Faculty of
	Horticulture, Bidhan Chandra Krishi Viswa Vidyalaya, Mohanpur, Nadia, (W.B.)
32	Jagathjhuti Datta, Growing Seed Organization, Dharmanagar North Tripura
33	Jayanta Saha, Department of Plant Pathology, Faculty of Agriculture, Bidhan
	Chandra Krishi Viswa Vidyalaya, Mohanpur, Nadia, (W.B.)
34	Justin Debbarma, Research Scholar, M. Sc, (Department of Horticulture),
	College of Agriculture, Tripura
35	Kaustav Nandi, Department of Horticulture, College of Agriculture Tripura,
	Lembucherra, West Tripura
36	Kunal Debbarma, Assistant Professor (Department of Horticulture), College of
	Agriculture, Tripura
37	Mamoni Kalita, Associate Professor, Faculty of Management & Commerce,
20	ICFAI University, Tripura
38	Manju Kumari Ranwa, Department of Post Harvest Management, Faculty of Horticulture, Bidhan Chandra Krishi Viswa Vidyalaya, Mohanpur, Nadia, (W.B.)
39	Manoj Singh Sachan, Subject Matter Specialist, KrishiVigyanKendra, Khowai,
39	Tripura, India
40	Moumita Bhattacharjee, PG Student, MBA, Faculty of Management &
40	Commerce, ICFAI University, Tripura
41	Nabaraj Bhowmik, Research Scholar, Faculty of Management and Commerce,
''	ICFAI University Tripura
42	Nandita Sahana, Department of Biochemistry, Uttar Banga Krishi
	Viswavidyalaya, Pundibari, Cooch behar, West Bengal, India
43	Nidhi Kesari, Associate Professor, Department of Management Studies, Shaheed
	Sukhdev College of Business Studies, University of Delhi, India
44	Niharika Singh, ICSSR Post-Doctoral Fellow, Mizoram University
45	Pauline Alila, Professor, Department of Horticulture, School of Agricultural
	Sciences, Nagaland University
46	Pinky Maity, Department of Post Harvest Management, Faculty of Horticulture,
	Bidhan Chandra Krishi Viswa Vidyalaya, Mohanpur, Nadia, (W.B.)
47	Prabir Datta, Dept. of Agriculture and farmers welfare, Tripura
48	Pradip Chauhan, Assistant Professor, Faculty of Management & Commerce,
	ICFAI University, Tripura
49	Prateek Khanna, Amity University, Ranchi, India
50	Pritam Bose, Assistant Professor, Faculty of Management & Commerce, ICFAI
<u></u>	University, Tripura
51	Pritam Roy, Research Scholar. Faculty of Management & Commerce, ICFAI
52	University Tripura  Punam Bhattacharjee, Growing Seed Organization, Dharmanagar North Tripura
32	r unam bhattacharjee, Growing Seed Organization, bharmanagar North Tripura

53	R. Chatterjee, Department of Vegetable and Spice Crops, Uttar Banga Krishi Viswavidyalaya, Pundibari, West Bengal	
54	R. Kalai, Department of Horticulture, College of Agriculture Tripura, Lembucherra, West Tripura	
55	Rajib Das, Subject Matter Specialist, KrishiVigyanKendra, Khowai, Tripura, India	
56	Ritam Janpati, MBA Student, Faculty of Management and Commerce, ICFAI University Tripura	
57	Rupak Saha, PG Students, MBA, Faculty of Management & Commerce, ICFAI University, Tripura	
58	Rupashree Das, Department of Horticulture, College of Agriculture Tripura, Lembucherra, West Tripura	
59	S Deb Roy, Department of Genetics & Plant Breeding, College of Agriculture Tripura	
60	S. S. Das, Department of Agricultural Statistics, Faculty of Management and Commerce, The ICFAI University, Agartala, Tripura	
61	Sahanob Nath, Growing Seed Organization, Dharmanagar North Tripura	
62	Samapti Goswami, Ph.D Research Scholar in the Department of Commerce,	
63	University of Gour-Banga, Malda, West-Bengal  Sankha Subhra Deb, Research Scholar, Faculty of Management and Commerce	
64	ICFAI University, Tripura, India.  Sarmoiha Reang, PG Students, MBA, Faculty of Management & Commerce,	
	ICFAI University, Tripura	
65	Sayan Saha, Research Scholar, M.Sc (Vegetable Sciences, Department of Horticulture), College of Agriculture, Tripura	
66	<b>Sneha Bhowmik,</b> PhD. Research Scholars, Faculty of Management and commerce, ICFAI University, Tripura	
67	Somnath Mandal, Department of Biochemistry, Uttar Banga Krishi Viswavidyalaya, Pundibari, Cooch behar, West Bengal, India	
68	Soumitra Sankar Das, Assistant Professor, Faculty of Management & Commerce, ICFAI University, Tripura	
69	<b>Sreparna Dey</b> , PhD. Research Scholars, Faculty of Management and commerce, ICFAI University, Tripura	
70	Sridhar Rathod, Ph.D Scholar, Department of Agronomy, School of Agricultural Sciences, Nagaland University	
71	Subhradip Bhattacharjee, Growing Seed Organization, Dharmanagar North Tripura	
72	Sujit Deb, Professor, Faculty of Management and Commerce, ICFAI University, Tripura, India.	
73	Sujit Sutradhar, Research Scholar, Department of Computer Application, ICFAI Technical School, FST, The ICFAI University Tripura	
74	Sujoy Hazari, Assistant Professor, Faculty of Management & Commerce, ICFAI University, Tripura	
75	Suman Natta, ICAR-National Research Centre for Orchids, Pakyong, Sikkim, India	
76	T.H. Irenaeus K.S, Assistant Professor (Department of Horticulture), College of Agriculture, Tripura	
	1	

77	Tridip Bhattacharjee, Assistant Professor (Department of Horticulture), College
	of Agriculture, Tripura
78	Trinankur Dey, Assistant professor, Faculty of Management and Commerce,
	ICFAI University Tripura
79	Tulsi Debbarma, Department of Horticulture, College of Agriculture Tripura,
	Lembucherra, West Tripura
80	Utpal Giri, Department of Agronomy, College of Agriculture Tripura,
	Lembucherra, West Tripura
81	Yasheshwar, Associate Professor, Department of Botany, Acharya Narender Dev
	College, University of Delhi, India
82	Navendu Nair, Department of Agricultural Entomology, College of Agriculture,
	Lembucherra, PIN- 799 210, Tripura, India.
83	Budha Chandra Thangjam, Department of Agricultural Entomology, College of
	Agriculture, Lembucherra, PIN- 799 210, Tripura, India

# Proposed intervention, Action Points and Strategic Recommendation

**National Seminar** 

on

"Growing Greener - Strengthening Horticulture through Innovations, Sustainability, and Market Access" on March 19, 2024

# Proposed interventions, Action Points and Strategic Recommendation for Horticultural Sector in Tripura

### **Proposed Interventions:**

### 1. Capacity Building for Farmer Empowerment:

Organize training workshops and capacity-building programs for farmers, focusing on innovative horticultural practices, sustainable cultivation techniques, and market-oriented approaches.

Establish Farmer Producer Organizations (FPOs) and Self-Help Groups (SHGs) to facilitate collective bargaining, market access, and value addition initiatives.

### 2. Promotion of Sustainable Farming Practices:

Advocate for the adoption of organic farming methods, integrated pest management (IPM), and water-saving irrigation technologies to enhance productivity, reduce environmental impact, and promote resilience in horticultural systems.

Provide technical assistance, subsidies, and incentives for farmers transitioning to organic and sustainable farming practices.

### 3. Market Research and Development:

Conduct comprehensive market research to identify consumer preferences, market trends, and opportunities for value addition in horticultural products.

Establish market linkages, including direct marketing channels, farmer markets, and e-commerce platforms, to connect horticultural producers with diverse consumer segments.

#### 4. Investment in Infrastructure and Post-Harvest Management:

Upgrade and develop infrastructure for post-harvest handling, including cold storage facilities, packaging units, and transportation networks, to reduce post-harvest losses and ensure quality maintenance of horticultural produce.

Facilitate access to credit, grants, and subsidies for the establishment of modern processing units and value addition facilities, promoting diversification and value addition in the horticultural sector.

#### **Action Points:**

1. Knowledge Transfer and Technology Adoption: Facilitate knowledge transfer and technology adoption through partnerships between research institutions, extension services, and horticultural producers.

ICPAr University Tripura Kamaighat, Tripura (West) Organize field demonstrations, training programs, and study tours to showcase best practices, innovative technologies, and successful case studies in horticulture.

### Policy Advocacy and Reform:

- 1. Advocate for policy reforms to support the horticultural sector, including access to credit, crop insurance, market infrastructure development, and supportive regulatory frameworks.
- 2. Lobby for the inclusion of horticultural products in government procurement programs and export promotion policies to enhance market access and competitiveness.
- 3. Promotion of Entrepreneurship and Value Addition: Encourage entrepreneurship and value addition in the horticultural sector through skill development programs, business incubation centers, and access to finance and market information.
- **4.** Support the establishment of small-scale processing units, agro-based enterprises, and farmer-owned cooperatives to add value to horticultural produce and create employment opportunities.

### **Strategic Recommendations:**

### 1. Diversification and Specialization:

Promote the cultivation of a diverse range of horticultural crops suited to Tripura's agro-climatic conditions, including fruits, vegetables, spices, medicinal plants, and ornamental crops.

Encourage specialization and niche marketing in high-value crops with export potential, such as exotic fruits, aromatic spices, and organic produce, to capitalize on market opportunities.

### 2. Integration of Technology and Innovation:

Harness emerging technologies, including artificial intelligence (AI), precision farming, and biotechnology, to enhance productivity, optimize resource use, and improve resilience in horticultural production systems.

Support research and innovation initiatives in crop breeding, pest and disease management, and post-harvest technologies to address sectoral challenges and seize emerging opportunities.

### 3. Sustainable Land Use and Environmental Conservation:

Promote sustainable land use planning and agroecological principles to conserve natural resources, biodiversity, and ecosystem services in horticultural landscapes.

ICPAL University Tripura Kamalghat, Tripura (West) **4.** Encourage the adoption of agroforestry, conservation agriculture, and climate-smart practices to enhance soil health, water efficiency, and environmental sustainability in horticultural production.

# Action Point and Strategic Recommendation of Technical Session 1 on the theme of Production and Development of Horticultural Sector

- 1. Incorporate Organic Farming Practices: Encourage farmers to adopt organic farming methods based on the findings of consumer attitudes towards organic fruits and vegetables. Develop extension programs to disseminate knowledge and provide support for transitioning to organic practices.
- 2. Promote Boron Foliar Spray Techniques: Disseminate the results of research on enhancing marigold floriculture through boron foliar spray under deficit irrigation strategies. Develop guidelines and training materials for farmers to implement this technique effectively, improving flower quality and marketability.
- 3. Scale Up Use of ICAR-FUSICONT: Highlight the effectiveness of ICAR-FUSICONT in controlling Panama Wilt Disease of Sabri Banana. Facilitate collaboration between researchers, extension workers, and farmers to promote the adoption of this biocontrol agent, potentially reducing crop losses and increasing banana yields.
- 4. Strengthen Product Branding Strategies: Address challenges related to product branding in horticultural crops. Develop workshops or training programs to educate farmers and small-scale producers on branding strategies tailored to horticultural products, enhancing their market competitiveness and profitability.
- 5. Implement Mechanization Technologies: Explore the mechanization of Indian horticulture based on research findings. Collaborate with agricultural machinery manufacturers to adapt and disseminate mechanization technologies suitable for horticultural operations, increasing efficiency and reducing labor dependency.
- **6.** Promote Underutilized Fruits: Identify prospective underutilized fruits of Tripura for nutrient-dense millet-based functional foods. Develop awareness campaigns and value-added product development initiatives to promote the cultivation and consumption of these fruits, contributing to food security and diversification.
- 7. Encourage Agripreneurship: Analyze statistical dynamics of agripreneurship in India's organic agriculture. Develop entrepreneurship training programs and support mechanisms tailored to aspiring agripreneurs, fostering innovation and sustainable growth in the horticultural sector.
- **8.** Advocate Soil Health Card Adoption: Assess the impact of soil health cards on soil fertility and crop yields. Develop extension programs to encourage farmers to adopt soil

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- health card recommendations, addressing challenges and providing technical assistance to optimize soil management practices.
- 9. Promote Integrated Pest Management (IPM): Disseminate IPM practices for sustainable fruit production. Develop training modules and demonstration plots to educate farmers on holistic pest management approaches, reducing reliance on chemical pesticides and minimizing environmental impacts.
- 10. Explore Speed Breeding Techniques: Investigate the potential of speed breeding for rapid crop breeding. Facilitate research collaborations and technology transfer to enable the adoption of speed breeding methods, accelerating breeding efforts for horticultural crops and enhancing genetic diversity.
- 11. Empower Rural Women through Skill Development: Develop skill development programs for rural unemployed women focusing on dried flower production. Provide training, access to resources, and market linkages to empower women to generate income through value-added horticultural products.
- 12. Address Water Stress in Mandarin Leaves: Study the accumulation of free proline in water-stressed mandarin leaves. Develop irrigation management guidelines to mitigate water stress and improve citrus productivity, ensuring sustainable mandarin cultivation practices.
- 13. Optimize Chilli Germplasm: Evaluate chilli germplasm based on morphological traits. Identify superior varieties for cultivation in Tripura and disseminate recommended varieties to farmers through seed distribution programs, improving crop productivity and quality.
- 14. Enhance Iron Fortification in Leafy Greens: Investigate the influence of iron fortification on green yield and nutrient uptake in leafy greens. Develop guidelines for iron supplementation in spinach cultivation to address micronutrient deficiencies and improve nutritional value.
- 15. Develop Pest Management Strategies: Conduct an inventory of lepidopteran pests infesting horticultural crops in Tripura. Develop pest management strategies tailored to specific pest species, including cultural, biological, and chemical control measures, to minimize crop losses and improve yield.
- 16. Utilize Jackfruit Seeds: Characterize jackfruit seeds from Tripura for their morphometric, proximate, and nutritional properties. Promote the utilization of jackfruit seeds as a nutritious food source or value-added product ingredient, contributing to food security and waste reduction efforts.

Kamalghat, Tripura (West)

17. Empower Women in Horticulture: Explore the role of Indian women in horticulture and develop initiatives to empower and support women in the sector. Establish women's cooperatives, training programs, and access to resources to enhance women's participation and leadership in horticultural activities.

Registrar, ICFATUniversity Tripura Kamalghat, Tripura (Wesi)

# Action Point and Strategic Recommendation of Technical Session 2 on the theme of Marketing and supply chain of Horticultural Sector

- 1. Promote Organic Cosmetics: Utilize consumer behavior patterns towards organic cosmetics in Tripura to foster the development and promotion of organic cosmetic products. Collaborate with local cosmetic producers to enhance product offerings, certification processes, and marketing strategies, tapping into the growing demand for natural and eco-friendly beauty products.
- 2. Encourage Mushroom Cultivation: Explore the prospects and address the challenges of mushroom cultivation in Tripura. Provide technical training, access to inputs, and market linkages to mushroom growers, fostering entrepreneurship and diversification in the horticultural sector.
- 3. Target Millennial and Gen Z Demographics: Understand the perception towards horticulture among Millennial and Gen Z demographics in Tripura. Develop targeted outreach campaigns and educational programs tailored to the preferences and interests of younger generations, encouraging their participation and engagement in horticultural activities.
- 4. Optimize Crop Supply and Demand Dynamics: Analyze the impact of supply and demand of specific horticultural products such as cucumber in Tripura. Develop market intelligence systems and supply chain optimization strategies to balance production with consumer demand, minimizing market fluctuations and ensuring stable prices for both producers and consumers.
- 5. Foster Market Integration: Investigate the integration of local markets in Tripura with major potato-producing states in India. Facilitate market linkages, infrastructure development, and trade agreements to enhance market integration and access to larger consumer markets, benefiting horticultural producers in Tripura.
- 6. Harness Nanotechnology for Crop Enhancement: Evaluate the effectiveness of biosynthesized TiO2 nanoparticles for enhancing growth, yield, and biochemical attributes in bitter gourd cultivation. Collaborate with researchers and agricultural extension services to disseminate knowledge and best practices for nanoparticle application, improving crop productivity and quality sustainably.
- 7. Promote Sustainable Intensification Practices: Enhance hybrid maize yield and productivity through sustainable intensification practices in Northeastern Unakoti

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- Tripura. Develop demonstration plots and farmer training programs on organic manure application, crop rotation, and integrated pest management to optimize maize production while preserving soil health and environmental sustainability.
- 8. Facilitate Export Market Access: Analyze export opportunities for horticultural products and assess the impact of transport infrastructure improvements in India. Advocate for policy reforms, investment incentives, and trade facilitation measures to reduce export barriers and enhance competitiveness in international markets, boosting income and employment opportunities for horticultural stakeholders.
- 9. Implement Green Environment Maintenance Techniques: Promote the use of skillful techniques for maintaining a sustainable green environment in horticulture. Develop guidelines and training programs for environmental conservation practices such as agroforestry, biodiversity conservation, and ecosystem restoration, fostering resilience and sustainability in horticultural landscapes.
- 10. Support Value Addition and Product Diversification: Encourage value addition and diversification in horticultural products through processing and product development initiatives. Provide technical support, market access, and financial incentives to entrepreneurs and small-scale processors to innovate and create value-added horticultural products, expanding market opportunities and enhancing income generation.

Registrar, ICFAI University Tripura Kamalghat, Tripura (West)

Hegistrar, ICFAHUniversity Tripura Kamaighat, Tripura (Wesn

# ICFAI University Tripura Faculty of Managerment and Commerce

National Seminar attendance sheet(19/03/2024)

Sl. No	Nameof theparticipant	Organization	Address	Contact No.
	Sayar Jaha	Research Scholar college of Hosticulture	West Nooba di, Agardala, Tripura	8787484705
1	Dr. BanaviDas	Assistant Professor college of Arrindme Tripme MSC. in Hosticulture	College of Agriculture Triphon Lembucherra	9612884785
	Louis Parvir	Msc. in Hosticulture	Madhya Kashipur, Agantale	8475867193
	Dr. Rajis Das	KUK Khowai Toipus	Chebri, Khowai	2131954672
5.	Tulsi Debharno Dr. Rupashree Ders	Mise Northeulture, codege of Agriculture	college of Agriculture	8832057511
6.		Coll Ege of Agriculture,	Tripura	6009243296
工,	Debasmita sil	M. SC. Honti Centerse college of Agriculture	Thirteera. Agniculture	9089429515
8.	Justin Debbarma	My Hooficulture, College of Agriculture Impure	College of Agriculture, Tripuna	9863424749
9	Dr. Yas heshwar	ANOC, DU, New Del	Dept-Consolony, ANDC	9810133500
10-	Tor neidhi Kesoni	SSCBS, DU, Man. Roll		8860550930
11-	Sarmoiha Renng	ICFAI UNIVERSON, TRIPURA	Knowlyhod Ambassa	7035831291
12	Moumita Bhall abthenza	Topai universely bupu	a halloabadivi-	1085622947
13	Shoubile Das	JOFAZ UNIV TAIPARA	Rammagan y	878769 5949
17	Zulin Maishyn	ICFAI UNIN THIPUT	ushabazan	8131900526
15	Paramelit Das	JUT:	Netaji Chownulan	9 863638635
16	Roni Sarkar	I.U.T	Agantala	9366847396
17	Josdip Saha	T.U.T	Briddhanagan	9233426724
18.	Anoud Ao	LUT	Agt	897407401
49	Ris deulp Qus	101	Belomin south (P)	9862843406
20	Omkar saha	LUT	Agt	936633539(

Registrar, ICFAI University Tripura Kamalghat, Tripura (West)

Sl. No	Nameof theparticipant	Organization	Address	Contact No.
21	Ankit Sankan	IUT	Agortala	8787536283
ॐ.	saiker Deb Nach	JUT	Agartola Dhodoswar	8837281935
<b>3</b> 3.	Ankita Nati	INT	Agridada	8258 924899
)ų.	Sucepanna Das	IUT	Agantala	602/8/4122
25.	Tandra Des	107	Sidhei Mohampur	8731807065
26.	Liza Oan	TUT	Khowai	6009840356
२न.	Suma Sinha	IUT	Silchen	9365303235
28	Psished Saha	701	sidhi mohanpur	8414468007
29	,	1VT	Hapania Agartala	7085898584
30	Tanmay seb	LQ I T	Ramnagari, Agt.	8837290330
31.	Rahul Saha	IUT	Agavlála	6009148598
<i>3</i> 2.	Chandini Debbarma	זטז	Kamalghat	8416011649
33.	Takhiti Debbauma	147	kamala het	6009611548
34	Rini Delson	1.U.T	Agartalo	7005323004
35	Tankit Paul	1.U.T.	1 A Karatala	9366760227
3G	Prestan Singha	PUT	Agaretala	9612233655
37	Anirudha Bhandhan	DUT	и	7005778724
38	Sangayan Debudl	- TUT	7.0	7005361186
99.	Kuldeep Barva	IUT	Agantala	6009222219
40.	Qlin Inti	14	Agendula	9080424300
41	Audie DI Barna	TUT	Agartal	9366131714
42		14 T -	Agarortala.	2118929303
43.	Meledy L. Kcipeng		Ampi ) Amarpus +	6033160454

Registrar.
UFAI University Tripura
Kamalghat, Tripura (West)

i.	Nameof theparticipant	Organization	Address	Contact No.
44	Jayospi Poul	Mesotato lug	Maria	9366938131
45	Paramita Bhaumk	107	Agwibala	8794692615
46	Karayam Govind Singh	IUT	Agaretala	9863468310
47	N Shaveofkumar Cinh	IUT	rdg are tela	9612897783
48	Subhearil Datta	IUT	Agastala	9.774621719
49		フレて	Agartal a	9089083149
50	Sumit Debrath	IUT	Agaretala	9485158662_
51	Souran Mitra	IUT	Agantala	\$3665/5-305
52	Lound Challen Sorty	IUT	Agartala	878777355
53	Monesh Paul	ゴロナ	Agcortala	0862086768
54.	Rahul Gupton	_907	Agartala	8730898503
55.		<b>T</b> U7	Agartala	6009379475
56	Thuten Bose	TUP	Agartala	7085917404
57.	Subhanit Chaynoburt	TOT	Syantala.	7005443933.
58.	17. 1	I-UT	Agantala	8837369643
53	Bishan Das	IUT	Agaretala	6009074249
60	Bupper North	IUT.	Agentala	8132849736
61	diegyadip Malakare	147	Sportfala	9362670949
4.2	Sbul hussan	149	djantola	8119820145
63	Tanni bas	JUT	Agaretaka	8131903910
64	Sounamita Debnoth	IUT	Agantalo	7629917117
650			Agwitala	9366751750
66	Jayoshree Debonat	7 17 7	Agovdala	7005932693

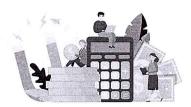
Registrar.
ICFAI University Tripura
Kamalghat, Tripura (West)

Sl. No	Nameof theparticipant	Organization	Address	Contact No.
67	Somaelnika Bhattachoije	PUT	Dharemanagar	6033196330
68.	Asmita Das	プレて	Belonia	8974231809
69.	Tania Das	JUT	Agartala	7005212133
70.	Samadaita Dav	<b>Ι</b> υτ	Agarbala.	9863244032
71	Meush Delbama	(VT	Azatalo	6009027637
72	Any pour Moj	lut	Aguen	8135-220105
73	Leui Molsom	147	Agartala	9383266768
74.	Sepadula Ser	107	Agartala	8119990695
78.	Bitam Roy	101	Agastala	9740255321
76.	Sandelie Salphon Deb	IUT	Agartala	8386041689
77	Dipankar Das	205	Agartala	7086867189
78	Rashmi Debbourner	JUT	Agastala	9560521881
79.	Papiya Ghosh	<i>901</i>	Agastala	7628840550
Bo	Dr. Angit Lan	777	Aganthen	9833204080
81	Dr Teinankur Dy	101.	Agartzla	9438169910
82	Dr. Navendo Wait	COA, Tozipura.	Lembucherra	9862858147
83	Md. miswhile Khlown	107	WBA	70084Hg98
84	DD Charles	IUT		.9436580400
85	trantik Deb.	T.U.T	BBA	6009173270
86	Samout Dargupta	TUT	BBA	7628801012
હતુ	om prakesh Badel	TUT	BBA	7903735118
6 C	Makani Debkon	107	BBA	6009950142
80	/ T	<b>TUT</b>	BBA	7629036460

Registrar, DFAI University Tripura Kamalghat, Tripura (West)

A. No	Nameof theparticipant	Organization	Address	Contact No.
	Anamika Debnath	IUT	Agardala	7005581644
91	Snohe Bho amile	\ vT	Agardala Agardala	7005581644
92.	Straponina Dey	IDT	Agazidala -	700548698.
93.	Victor Debbacma	IVT	Agartala	7085787898
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Pegistrar, ICFAI University Tripura Kamalghat, Tripura (West)



VENUE- The Venue of the seminar is university Auditorium, The ICFAI University Tripura, Kamalghat, Agartala, Pin-799210.

Registration Linkhttps://forms.gle/Gu5Eyt2ANG2DuRRW6

### ORGANIZING COMMITTEE

#### **CHIEF PATRON:**

Prof. (Dr.) Biplab Halder, Hon'ble Vice-Chancellor, IUT.

#### PATRON:

Dr. Avula Ranganath, Registrar, IUT.

Prof. (Dr.) Subhasish Chatterjee, Dean -Academic Affairs and Director - IQAC, IUT.

#### **CORE COMMITTEE**

Dr. Soumitra Sankar Das(Convener) Assistant Professor, FMC, IUT.

Dr. Mamoni Kalita (Joint Convener) Associate Professor & HoD of BBA, FMC, IUT.

Dr. Pradip Chouhan (Joint Convener) Assistant Professor, FMC, IUT.

Dr. Sujoy Hazari (Secretary), Assistant Professor, FMC, IUT.

Dr. Trinankur Dey, (Joint Secretary), Assistant Professor FMC, IUT

Prof. Tamladipta Sen, (Joint Secretary), Assistant Professor FMC, IUT

#### **ADVISORY COMMITTEE:**

Dr. Sujit Deb, Dean, Faculty of Management and Commerce, IUT.

Dr. T.K. Maity, Principal, College of Agriculture Tripura, Lembucherra

Dr. Prasenjit Dasgupta, Professor & HoD of MHA, FMC, IUT.

Dr. Dhananjoy Datta, Professor, Dean of Research & Dev., IUT.

Dr. Annesha Saha, Associate Professor & HoD of B.Com(H), FMC, IUT.

Dr. Sunil Kumar, Associate Professor & HoD of M.Com FMC, IUT.

#### ORGANIZING MEMBER:

Dr. Gokul Acharjee, Assistant Professor, FMC, IUT.

Prof. Sudip Bhattacharjee, Assistant Professor FMC, IUT.

Dr. Animesh Bhattacharjee, Assistant Professor FMC, IUT.

Dr. Dipangshu Dev Chowdhury, Assistant Professor FMC, IUT.

Dr. Pritam Bose, Assistant Professor FMC, IUT.

Dr. T Seikhotinthang Haokip, Assistant Professor FMC, IUT.

Prof. Dipankar Das, Assistant Professor FMC, IUT.

Prof. Papiya Ghosh, Assistant Professor FMC, IUT

Prof. Rashmi Debbarma, Assistant Professor FMC, IUT

Mr. Sujit Sutradhar, Dy. Manager IT, IUT.

Mr. Debidas Chakraborty, Sr. System Administrator, IUT

Mr. Samarjit Saha, Deputy Manager, Accounts, IUT.

Ms. Kaberi De, Assistant Manager Personal HR, IUT.

Mr. Santi Brata Saha, Manager, IUT.

Mr. Rajarshi Bhowmik, Manager, IUT.

Mr. Tanay Deb, Dy. System Administrator, IUT

Ms. Tapti Laskar, Education. Officer, IUT.

Mr. Rakesh Debbarma, Admin. Officer, IUT.

Mr. Sankha Subhra Deb, Research Scholar, FMC, IUT.

Ms. Debadrita Dev, Research Scholar, FMC, IUT.

Mr. Pritam Roy, Research Scholar, FMC, IUT.

Mr. Rajarshi Majumder, Research Scholar, FMC, IUT.

Ms. Sreeparna Roy, Research Scholar, FMC, IUT.

Mr. Akash Das, Research Scholar, FMC, IUT.

Mr. Nbaraj Bhowmik, Research Scholar, FMC, IUT.

Registrar, ICFAI University Tripura Kamalghat, Tripura (Wast)



The ICFAI University, Tripura

(Established under Section 4(2) of The Institute of Chartered Financial Analysts of India University, Tripura Act 2004) Campus address: Kamalghat (near Agartala), PIN-799210, Tel: 0381-2865752/62 Fax: 2865-754 Website: www.iutripura.edu.in E-mail: registrar@iutripura.edu.in

Ref No.IUT/FMC/NT/2023-24/D-792(I)(A)

Date: 09-03-2024

### Faculty of Management & Commerce

### *NOTICE*

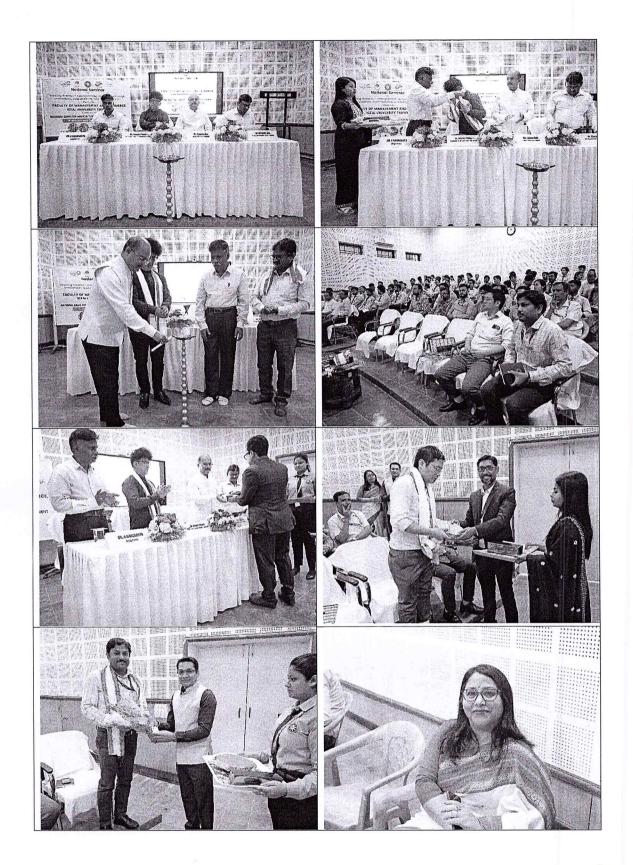
Faculty of Management & Commerce with collaboration with NABARD is going to organize one days Seminar on the topic "Growing Greener - Strengthening Horticulture through Innovations, Sustainability, and Market Access" as well as the exhibition cum sales program by the rural artisans of Tripura on March 19, 2024 in offline mode.

Dr. Sujit Deb

Dean FME Carety of Management & Commerce, IUT

**IUT** 

Kamalghat, Tripura (Wes\*



Registrar, ICPALUniversity Tripura Kamalghat, Tripura (West)

# National seminar at ICFAI on Horticulture

M NEC Report

Agartala, Mar 20: Faculty of Management & Commerce of the ICFAI University Tripura in collaboration with NABARD Tripura hosted a National Seminar on "Growing Greener Strengthening Horticulture through Innovations, Sustainability, and Market Access" at University Campus, on March, 2024. The seminar was inaugurated by Dr. UmeshThapa, Professor of Faculty of Horticulture & Former Director of Extension Education, Bidhan Chandra Krishi Viswavidyalaya of West Bengal as Chief Guest, Dr. Biswajit Das, Principal Scientist, ICAR Research Complex for NEH-Tripura Centre as the Special Guest and Mr. Loken Das, General Manager, NABARD-Agartala as Guest of Honour. Welcome address given by Dr. A Ranganath, Registrar of the ICFAI University Tripura. The Faculty members and Research scholars from various institutions including ICFAI University Tripura presented research papers on that seminar, A Special paper was presented on "Low cost technologies for entrepreneurship development through selected potential horticultural crops: a startup approach" by Dr. Thingreingam Irenaeus K.S. Assistant Professor of Department of Horticulture, College of Agriculture Tripura. Simultaneously an exhibition cum sale programme also organized in the open auditorium complex of the University for the rural artisans of Tripura who exhibited and sold various horticulture items. Around 100 numbers of participants from renowned organizations like Uttar Bango Krishi Vidyalaya, J.B. College of University of Delhi, Central Agricultural University, College of Agriculture Tripura, Nagaland University, Mizoram University, University of Gour-Banga, ICAR, NABARD etc. throughout the country have participated in the National Seminar. The seminar was coordinated by Dr. Mamoni Kalita, Associate Professor, Dr. Soumitra Sankar Das, Dr. Sujoy Hazari, Dr. Trinankur Dey, Prof. Tamladipta Sen & Dr. Pradip Chouhan, Assistant Professors of the ICFAI University Tripura, The University extends its heartiest thanks to all concerned for successful completion of the seminar.

NEC DATE 21/03/2024 15x8cm

Registrar, ICFAI University Tripura Kamalghat, Tripura (West

# ICFAI organized National Seminar and exhibition on Horticulture

Times News Agartala, Mar 20: Faculty Management & Commerce of the ICFAI University Tripura in with collaboration NABARD Tripura hosted National Seminar on "Growing" Strengthening Horticulture through Innovations, Sustainability, and Market Access" at University Campus, on 19th March, 2024. The seminar was inaugurated .UmeshThapa, Professor of Faculty of Horticulture & Former Director of Extension Education, Bidhan Chandra KrishiViswavidyalaya of West Bengal as Chief Guest, Dr.Biswajit Das, Principal Scientist, ICAR Research Complex for NEH-Tripura = Centre as the Special Guest and Mr.Loken Das, General Manager,

Agartala as Guest of Honour. Welcome address given by Dr. A Ranganath, Registrar of the ICFAI University Tripura. The Faculty members Research scholars from institutions various including ICFAI University Tripura presented research papers on that seminar. A Special paper was presented on "Low cost technologies entrepreneurship development through selected potential horticultural crops: a startup approach" Dr. ThingreingamIrenaeus K.S, Assistant Professor of Department of Horticulture, College of Agriculture Tripura. Simultaneously an exhibition cum sale programme also organized in the open auditorium complex of the University for the rural artisans of NABARD- Tripura who exhibited and

sold various horticulture items. Around 100 numbers participants renowned organizations like Bango Uttar Vidyalaya, J.B College of University of Delhi, Central Agricultural University, College of Agriculture Tripura, Nagaland Mizoram University, University, University of Gour-Banga, NABARD etc. throughout the country have participated in the National Seminar. The seminar was coordinated by Dr. MamoniKalita, Associate Professor, Dr. Soumitra Sankar Das, Dr. Sujoy Hazari, Dr. Prof. Trinankur Dey, Tamladipta Sen & Dr. Pradip Chouhan. Assistant Professors of the ICFAI University Tripura. The University extends its heartiest thanks to all concerned for successful completion of the seminar.

Tripura Times Date: 21/03/2024 12x12cm

Jegistrar, ICTAL University Tripura Kamalghat, Tripura (VVA

# ইকফাই-এ হর্টিকালচার এর উপর জাতীয় সেমিনার ও প্রদর্শনী

আগরতলা, ২০ মার্চ।। ইকফাই বিশ্ববিদ্যালয় ত্রিপুরার ম্যানেজমেন্ট আভে কমার্স বিভাগ এবং নাবার্ড ত্রিপুরার যৌথ উদ্যোগে গত ১৯শে মার্চ, ২০২৪ ইং বিশ্ববিদ্যালয় ক্যাম্পাদে উদ্ভাবন ও ক্রমবর্ধমান সবুজায়নের মাধ্যমে হর্টিকালচার এর উনতিকরণ ও বাজারজাতকরণ' শীর্ষক এক জাতীয় সেমিনারের আয়োজন করা হয়। প্রধান অতিথি হিসাবে সেমিনারের উদ্বোধন করেন পশ্চিমবঙ্গের বিধান চন্দ্র কৃষি বিশ্ববিদ্যালয়এর হর্টিকালচার বিভাগের অধ্যাপক তথা সম্প্রসরেণ শিক্ষার প্রাক্তন পরিচালক ড: উমেশ থাপা, বিশেষ অতিথি হিসাবে উপস্থিত ছিলেন ইন্ডিয়ান কাউদিল অফ এগ্রিকালচারাল রিসার্চ ত্রিপুরা কেন্দ্রের গবেষণা কমপ্রেপ্তের প্রধান বিজ্ঞানী ড: বিশ্বজিৎ দাস এবং ছিলেন নাবার্জ ত্রিপুরার জেনারেল বিশ্ববিদ্যালয়ের রিসার্চ স্কলাররা গবেষণা বিষয়ক প্রবন্ধ উপস্থাপন করেন। ত্রিপুরার কৃষি কলেঞ্জের উদ্যানতত্ত্ব বিভাগের সহকারী অধ্যাপক ভঃ বিংরিঙ্গম



ইরেনিয়াস কে এস একটি বিশেষ গবেষণাপত্র উপস্থাপন করেন যার শীর্যক ছিল 'নির্বাচিত স্থাবা উদ্যানপালন ফসলের মাধামে উ স্যোক্তা বিকাশের জন্য কম প্রায় ১০০ জনের বেশি খরডের প্রযুক্তি: একটি স্টার্টআপ পদ্ধতি । একই সাথে তিপুরার সেমিনারে অংশ নেয়। সেমিনারটি সম্মানিত অতিথি হিসাবে উপস্থিত গ্রামীণ কারিগর দেব জন্য **डेग्**क ম্যানেজার খ্রীযুক্ত লোকেন নাস অভিটোরিয়াম কমপ্লেক্তে একটি প্রমূখ। স্বাগত বক্তব্য প্রদান করেন। প্রদর্শনী তথা বিজয় কর্মসূচিরও। সহকারী অধ্যাপক গণ দ্বেমন ড: ইকফাই ত্রিপুরার রেজিস্টার ড: এ আয়োজন করা হয় যেখানে বিভিন্ন সৌমিত সংকর বাস, ড: সুজয় রঙ্গনাও। উক্ত সেমিনারে ইকফাই উদ্যানজাত সামগ্রীর প্রদর্শন ও বিক্রি হাজারী, ড: ত্রিনান্তুর দে, অধ্যাপক বিশ্ববিদ্যালয় ত্রিপুরা সহ বিভিন্ন করা হয়। সারা দেশের বিভিন্ন তমলদীপ্ত সেন এবং ড: প্রদীপ প্রতিষ্ঠানের ফ্যাকান্টি মেম্বার এবং প্রতিষ্ঠান যেমন উত্তর বন্ধ কৃষি চৌহান প্রমুখ। সেমিনারটি বিদ্যালয়, দিলির জেবি কলেজ, সফলভাবে সম্পন্ন করার জন্য সেন্ট্রল ইউনিভার্সিটি, করেজ অব পশ থেকে সংশ্লিপ্ট সকলকে আর্থ্রিকালচার ত্রিপুরা, নাগাল্যান্ড আন্তরিক ধন্যবাদ জানানো হয়।

ইউনিভার্সিটি, মিলোরাম ইউনিভার্সিটি, গৌর-বঙ্গ ইউনিভার্সিটি, আই সি এ আর, নাবার্ড ইত্যাদির মতো বিখ্যাত প্রতিষ্ঠানের অংশগ্রহণকারী উক্ত জাতীয় পরিচালনার দায়িত্বে ছিলেন ইকফাই বিশ্ববিদ্যালয়ের সহযোগী অধ্যাপিকা ভ: মামনি কলিতা এবং অন্যানা এখিকালচারাল ইকফাই বিশ্বিদ্যালয় ত্রিপুরার

Syandaa Portrika Date-21/03/2024 16x12cm

> ICFAI University Tripura Kamalghat, Tripura (West)

# ইকফাই এ হটিকালচার এর উপর জাতীয় সেমিনার এবং প্রদর্শনী সম্পন্ন



পঠিক সংবাদ, আগরতলা, ২০ মার্চ ३कम्भद्रे नियक्तिमहाभाग किल्ताक्र ফানেজ্যেটি আন্তে কমর্সে বিভাগ च्या नायार्ड जिल्लात स्वीध উন্নানে নত ১৯শে মার্চ, ২০২৪ ইং তারিয়ে বিশ্ববিদ্যালয় ক্যাল্পানে ভিঞ্জাবনতে ক্রথেবর্ধসান সপ্তভায়েনের উন্নতিকরণ ও বাজারজাতকরণ' শীর্ষক এক জাতীয় সেমিনারের গ্যানোজন করা হয়। প্রধান অভিথি হিসাবে সেহিনারের উদ্দোধন করেন পশ্চিমবঙ্গের বিধান চন্দ্র कृषि दिश्रीनपालगाउँद इंडिकालहात বিভাগের অধাপেক তথা সম্প্রসারণ শিশার প্রাক্তন পরিচালক ড: উমেশ থাপা, বিশেষ অভিথি হিসাবে উপস্থিত ছিলেন ইন্ডিয়ান কভেঁপিল অফ এগ্রিকালচারাল বিষোর্চ জিপুরা কেন্দ্রের গবেষণা कमाश्राद्धत ध्रथान विकासी छः বিশ্বজিৎ দাস এবং সম্মানিত অভিথি হিসাবে উপন্থিত ছিলেন নাৰাভ তিপ্ৰাৰ জেনাৱেল

ম্যানেজার শ্রীযুক্ত লোকেন দাস প্রমুখ। স্বাগত বক্তবা প্রদান করেন ইকদাই ত্রিপুরার রেজিস্ট্রার ভ: এ রঙ্গনাথ। উক্ত সেমিনারে ইকমাই বিশ্ববিদ্যালয় ত্রিপুরা সহ বিভিন্ন প্রতিষ্ঠানের ফ্যাকান্টি মেস্কার এবং রিসার্চ ভলারর। গবেষণা বিষয়ক মাধামে হটিকাল্ডার এর প্রথম উপস্থাপন করেন। ত্রিপুরার कृषि करणरङ्गद उमान्यक বিভাগের সহকারী অধ্যাপক ভঃ খিংরিদ্ধা ইরেনিয়াস কে এস একটি বিশেষ গবেষণাপর উপস্থাপন करतम भार शीर्यक दिल 'मिर्वाहित भद्राया উদ্যানপালন ফস্তের মাধামে উদ্যোক্তা বিকাশের জনা कम गदरहत श्रम्किः এकि স্টার্টআপ পদ্ধতি"। একই সাথে ভিপুরার গ্রামীণ কারিগরদের জনা বিশ্ববিদ্যালয়ের **डे गा** रहा অভিটোলিয়াম কমপ্লেরে একটি প্রকর্ণনী তথা বিজন্ম কর্মসচিত্রও আখোজন করা হয় যেখানে বিভিন্ন উদানভাত সামগ্রীর প্রদর্শন ও বিক্রি করা হয়। সারা দেশের বিভিন্ন

প্রতিষ্ঠান যেমন উত্তর বস কৃষি বিদ্যালয়, দিখির জেবি কলেজ, সেন্ট্রাল এগ্রিকাল্ডারাল देखें निकामिति, करनक यक এখিকালচার ত্রিপ্রা, নাগালাঙ ইউনিভাসিটি, নিজোরাম ইউনিভার্সিটি, (धीरः - सञ् ইউনিভার্সিটি, আই সি এ আর. নাবার্ড ইড়াাদির মতো বিখ্যাত প্রতিষ্ঠানের প্রায় ১০০ জনের বেশি অংশগ্রহণকারী উক্ত ভাতীয় ক্রেমিনারে অংশ নেয়। সেমিনারটি **अदिहालनार स्वीएक किर्**लन ইক্পাই বিশ্ববিদ্যালয়ের সংযোগী प्राथानिका फः प्राप्ती रुक्षिण उत्तः অন্যান্য সহকারী অধ্যাপক গণ যেনন ড: সৌমিত্র সংবর দাস, ডঃ সূজ্য হাজারী, ড: ত্রিনাছর কে. অধ্যাপক তমলনীপ্র সেন এবং ডঃ প্রদীপ চৌহনে প্রমুখ। সেমিনরেট সফলভাবে সম্পন্ন করার জন্য ইনাকাই বিশ্ববিদ্যালয় তিপুরার পক থেকে সংশ্রিষ্ট সকলকে আন্তরিক वनावान जानात्ना दशा

Pathak Sambad Date: 21/3/24 20x12cm

> University Tripura Kamalghat, Tripura (West)





## A Report on

National Seminar on

"EMERGING ISSUES & TRENDS OF SOCIO-ECONOMIC DEVELOPMENT IN RURAL ECONOMY WITH SPECIAL EMPHASIS ON HANDLOOM AND HANDICRAFT SECTOR"

27th and 28th February 2023





Organized By

FACULTY OF MANAGEMENT AND COMMERCE
THE ICFAI UNIVERSITY TRIPURA

In collaboration with

NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT

ICPAl University Tripura Kamaighat, Tripura (West)

## **CONTENTS**

S1 No	Particulars
1	Brief Report
2	Program Schedule
3	Strategies for development of the Handloom and Handicraft Sector in Tripura
4	Proposed interventions for the Handloom and Handicraft Sector in Tripura
5	Action Point and Strategic Recommendation of Technical Session 1 & 2 on the theme of Handloom and Handicraft Sector
6	Action Point and Strategic Recommendation of Technical Session 3 on the theme of Banking and Microfinance Sector
7	Action Point and Strategic Recommendation of Technical Session 4 on the theme of Agriculture and Allied Sector
8	Action Point and Strategic Recommendation of Technical Session 5 on the theme of Social Structure culture and Environment Sector
9	Attendance
10	Organizing Committee Details
11	Notice
12	Photo Gallery
13	Press Release



### **Brief Report**

National Seminar on "Emerging Issues & Trends of Socio-Economic Development in Rural Economy with special emphasis on Handloom and Handicraft Sector" on 27th and 28th February 2023

Faculty of Management and Commerce, ICFAI University Tripura organized a National Seminar on "Emerging Issues & Trends of Socio-Economic Development in Rural Economy with special emphasis on Handloom and Handicraft sector" In collaboration with NABARD during 27th and 28th February 2023. In the seminar, the chief guest was Dr. Rama Ramswamy, Associate Professor, Department of Commerce, Mizoram University; the keynote speaker was Dr. Bibhuti Ranjan Bhattacharjya, Assistant Professor, Department of Design, IIT Roorkee, Uttarakhand; the guest of honour was Mr. Loken Das, General Manager, NABARD, RO Agartala; and the special guest was Dr. Ranjit Singh, Professor, IIIT Allahabad. The seminar received 65 numbers of research work from 17 different states, like Tripura, Assam, Sikkim, Meghalaya, Mizoram, West Bengal, Uttarakhand, UP, Kerala, Telangana, New Delhi, etc. Participants are from different recognised institutions like FISAT Business School, JNU, Tezpur University, Babasaheb Bhimrao Ambedkar University, Mizoram University, MIT WPU School of Economics, Assam University, Amity University, Indian Institute of Handloom Technology Chowkaghat, ICAR, ICFAI Meghalaya, NIT Agartala, Tripura University, and College of Agriculture Tripura. There are different technical sessions and discussions, followed by a strategic road map for future purposes. During the day, "exhibition and sale of handloom and handicraft products" also took place at the ICFAI University campus premises, and 40 weavers from different districts, like Gomati, Sepahijala, Khowai, and West Tripura, participated in the exhibition programme.



Flogistrar, ICFAL University Tripura Kamalghat, Tripura (West)



## FACULTY OF MANAGEMENT AND COMMERCE ICFAI UNIVERSITY TRIPURA

Presents National Seminar on

"Emerging Issues & Trends of Socio-Economic Development in Rural Economy with special emphasis on Handloom and Handicraft sector"

In collaboration with

### NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT

27th and 28th February 2023

### PROGRAMME SCHEDULE

Time	Particulars		
	DAY 1 (27th February 2023)		
	Inaugural Ceremony (Auditorium)		
09:00-10:00	Registration		
10:00-10:30	Welcoming Guests		
10:30-10:35	Felicitation of Guests		
10:35-11:40	Lamp Lighting Ceremony		
10:40-10:50	Welcome Address by Dr. A Ranganath, Registrar, ICFAI University Tripura		
10:50-11:05	Speech by <b>Dr. Sujit Deb</b> , Dean, Faculty of Management and Commerce, IUT		
11:05-11:30	Keynote Address by <b>Dr. Bibhuti Ranjan Bhattacharjya</b> , Assistant Professor, Department of Design, IIT Roorkee, Uttarakhand, India		
11:30-11:45	Address by Guest of Honour Mr. Loken Das, General Manager, NABARD, RO Agartala		
11:45-12:10	Address by Chief Guest - Dr. Rama Ramswamy, Associate Professor, Department of Commerce Mizoram University, India		
12:10-12:20	Vote of Thanks by <b>Dr.Trinankur Dey</b> , Joint Convener, Assistant Professor, FMC, ICFAI University Tripura		
12:20-12:30	Tea Break		
12:30-12:50	Visit to "Exhibition of Handloom and Handicraft Product "at Open Gallery, IUT Campus		
12:50-14:00	Weavers -Scientist Interaction at Auditorium		
14:00-14:45	Lunch Break		
	Technical Session I & II		
:45-17:00	Research Paper Presentation		
	End of Day 1		
	DAY 2 (28 <sup>th</sup> February 2023)		
	Technical Session – III, IV & V		
10:00 -13:30	Research Paper Presentations		
11:30-11:45	Tea Break		
13:30-14:45	Lunch Break		
	Valedictory Ceremony (Auditorium)		
14:45-15:00	Welcoming Guests		
15:00-15:10	Welcome Address by Dr. A Ranganath, Registrar, ICFAI University Tripura		
15:10-15:20	Address by <b>Prof. (Dr.) Subhasish Chatterjee</b> , Dean –Academic Affairs and Director – IQAC, ICFAI University Tripura		
15:20-15:40	Special address by dignitary from NABARD		
15:40-15:50	Valedictory Speech by Dr. Sujit Deb, Dean, Faculty of Management and Commerce, IUT		
15:50-16:00	Vote of Thanks by Dr. Mamoni Kalita, Seminar Secretary, FMC, ICFAI University Tripura		
16:00-16:30	Distribution of certificate and photography session		
	End of Day 2		

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### National Seminar on

"Emerging Issues & Trends of Socio-Economic Development in Rural Economy with special emphasis on Handloom and Handicraft Sector"

27<sup>th</sup> and 28<sup>th</sup> February 2023

### **Technical Schedule**

### Day 1 Technical Session-1

Date: 27.02.2023

Time: 02:45-05:00 PM

Room No: Auditorium (115) Chair: Dr. Rama Ramswamy Rapporteur: Mr. Priyabrata Roy

Zaper No.	Title of the Paper	Author(s)	
1	A Study on Buying Behavior toward Handicraft Products in Garo Hills	Ranitha D Shira	
2	Challenges and opportunities for cottage industries in Sikkim	Bijayata Chettri	
3	Digital Empowerment on Silk Entrepreneurs: An empirical study based in Assam	Ms. Niharika Das	
4	Financial Inclusion and Financial Literacy of Handloom Weavers in Mizoram	Shruti Shahi	
5	Handloom Industries and its Economic Potentialities: An Analysis	Arijit Chakraborty	
6	Influence of Patriotism and Ethnocentrism on Purchase Intention of Khadi Products	Akash C, Biji U. Nair & Indu George	
7	Opportunities and Challenges of Traditional Handloom Entrepreneurs : A Case Study of Agartala city	Sevika Debbarma	
8	Role of Geographical indication in promoting the Handloom/Textile Industries in India (with special Reference to Handloom of Odisha)	Dr. Nayanjyoty Das, Dr. Zigisha Pujsri	
9	Occupational Health Hazard and Women's Empowerment among Handloom Weavers in Telangana State	Dr. Sheela Suryanarayanan & Mr.TaruShekar Reddy	
10	A Study on the Economic Situation of Handloom Weavers in North Eastern Region of India: A Tale from Handloom Census	Pradip Chouhan, Sujoy Hazari & Sanjib Chakraborty	
11	A Study on the Status of Handloom Artisans in the West Tripura District of Tripura, India	Anamika Debnath, Sujoy Hazari, Mamoni Kalita, Bhargabi Chakraborty, Chingkhiri Debbarma,	

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### Day 1 Technical Session-2

Date: 27.02.2023

Room: 425

Chair: Dr. Bibhuti Ranjan Bhattacharjya, Rapporteur: Mr. Sankha Subhra Deb

Paper No.	Title of the Paper	Author(s)
1	Revival of the Handloom Industry in Telangana: An Overview of Government Policies	Dr. Sreeramulu Gosikonda
2	Socio-Economic Conditions of Handloom Weavers in Dhalai district of Tripura: A Case Study of the Reang Tribes	Rajesh Reang & Pradip Chouhan
3	Tapping the Power of Geographical Indications to Uplift Economic Condition of Textile Artisans	Gauri Kathju Purohit & Prof. Radha Kashyap
4	Youth Behaviour towards Traditional Handloom Products of Kinnaur and Kullu districts in Himachal Pradesh	Dharmender Kumar & Dr. Doel Mukherjee
5	Khadi Sector: Growth or Decline?	Eshaan Rane, Urmmila Desai, Rutwik Joshi, Kavya R. Ajit, Anuja Gokhale
6	Status of Handloom and Handicraft Sector in India: An Overview	B.Das
7	A Study on the Consumer perception towards Handloom products in Tripura	Mrinal Deb, Dr. Mamoni Kalita & Kaberi De
8	Attitude & Perception study of Handloom buyers in Tripura: A Survey	Akash Das &DrTrinankurDey
9	Developmental Projects and Programme for Handloom Sector by Central Government	P.Vasu
10	Role of MSME in Growth of Indian Economy with Special Reference to Handloom Sector	Susmita Sinha

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Kamalghat, Tripura (West)

Time: 02:45-05:00 PM

### Day 2 Technical Session-3

Date: 28.02.2023

Time: 10:00 -01:30 PM

Room: Auditorium (115) Chair: Dr. Ranjit Singh

Rapporteur: Dr. Animesh Bhattacharjee

Technical Talk on "Marketing of Handloom and Handicraft sector in India: strategies

and recommendation" by Dr. Ranjit Singh

Paper		
No.	Title of the Paper	Author(s)
1	Performance of Self Help Group through Microfinance- A Comparative Study	Rupayani Sutradhar and Annesha Saha
2	A Study on Effectiveness of Instagram as a medium of Promotion	Parna Datta Dr. Abhijit Pandit
3	A Study on the Role of NABARD's Self Help Group-Bank Linkage Programme in Rural Tripura	Debadrita Dev & Dr. Annesha Saha
4	Economic Development in India: A Good Governance and Improved Infrastructure Perspective Based on Panel Data	Arnab Dutta Choudhury & Ritwik Mazumder
5	Financial Performance of Selected Public Sector Banks of India	Anubrata Dhar Chaudhuri, & Dr. Dipangshu Dev Chowdhury
6	Local Government, Democracy and Federal Predicaments in India	Dr.Mayengbam Nandakishwor Singh
7	Measuring Household Level Financial Inclusion in Cachar District of Assam	Mr. Manna Nath & Dr. Manash Roy
8	Microfinance, Self-Help-Group and Women Empowerment: Literature Review	Miss Madhusmita Sarkar & Dr. Shrabanti Maity
9	Good Governance of Regional Rural banks and National Bank of Agriculture and Rural Development in Rural Development in Tripura, India	Mr. Samarjit Saha & Dr. Sunil Kumar
10	Entrepreneurship and Government Schemes	Dr. Archana Singh
11	Explaining India's Food Exports to SAARC Countries Since 2000: An Empirical Exploration Based on Panel Data	Rimpi Kurmi, Ritwik Mazumder, Rajat Sharmacharjee
12	Sustainable Fashion Consumption: What Difference Can We Make?	Dr. Niharika Singh& Prof. L. Shashikumar Sharma
13	The Impact of Social Media Marketing Activities on Consumer Buying Behaviour: A Study in the context of Tripura	Nibedita Das, Dr. Abhijit Pandit
14	Poverty alleviation through financial institution: A bibliometric analysis	Sankha Subhra Deb & Dr. Sujit Deb

ICFAT University Tripura Kamalghat, Tripura (West)

## Technical Session-4

Date: 28.02.2023

Time: 10:00 -01:30 PM

**Room: 423 (FMC)** Chair: Dr. Dhananjoy Datta Rapporteur: Dr. Soumitra Sankar Das

Paper No.	Title of the Paper	Author(s)
1	Agri-Drones, Innovative Precision Technology towards Sustainable Agriculture	B. Debbarma, A. Saha, S. Teli, P. Lodh
2	An approach for enhancing farmer's income through Farmer Producer Organizations' (FPOs)	Ms. Supriya Gautam
3	A Study on the Factors Influencing Organic Agricultural Production in Sepahijala Tripura District of Tripura, India	Jahnabi Debbarma & Sujoy Hazari,
4	Antimicrobial UV characteristics of handloom silk printed with natural dyes containing chitosan and alovera	Vinay Kumar Chauhan, Thennarasu.P, Ragini Dubey, Ritu Pandey, Mona Verma
5	Conservation Agriculture- North-East Perspective	A. Saha, P. Lodh, B. Debbarma, S. Teli
6	Exploration of Soil Temperature and Canopy Air temperature Difference (CATD) of Baby Corn (Zea mays L.) Under Different Irrigation Regimes and Mulching Practices in New Alluvial Zone of West Bengal	Abhijit Saha, Sonali Biswas and Dhananjoy Dutta
7	Blood fruit (HaematocarpusValidus (Miers.) Bakh. F. ex Forman: A Potential natural colourant found in Tripura	H.Lembisana Devi, Biswajit Das &Bapi Das
8	Potentiality of Millet Cultivation in Tripura	Anandikakar, Triparna Das Choudhury, Dr. Utpal Giri, Dr. Niladri Paul and Dr. Tapan Kumar Maity
9	Presence of Sarocladiumoryzae causing sheath rot of paddy in Tripura – A potential threat for paddy and bamboo cultivation	D. P. Awasthi, Biman De, Utpal Giri & Tridip Bhattacharjee
10	Problematic Weed Water Hyacinth- Way of Rural Livelihood Development	Dr. Debasree Saha
11	Study of Fertility Disorder of Cattle in Bishalgarh Area and Its Effect in Sustainable Development	Rithi Majumdar
12	Meghalaya Tourism its potential on Development and Economic Growth	Fidiarity Kharumnuid & Kimneithem kipgen
13	Utilization of Power Tiller by The farmers of Gomati district	Subrata Debanth, Gokul Acharjee and Sujoy Hazari

Kamalghat, Tripura (West)

### **Technical Session-5**

Day 2

Date: 28.02.2023

Time: 10:00 -01:30 PM

Room: 425 (FMC) Chair: Dr. Sujit Deb Rapporteur: Prof. Tamladipta Sen

Paper No.	Title of the Paper	Author(s)	
1	Climate Smart Agriculture: Strategies to Achieve Sustainable Food Security	S. Teli, A. Saha, B. Debbarma, P. Lodh	
2	Explaining the Determinants of Early Marriage among Indian Women: A District level Analysis based on NFHS Data	Dr. Susmita Das & Dr. Ritwik Mazumder	
3	Mushroom Cultivation for Poverty Alleviation	Dr. Arpita Sharma Kandpal	
4	A study on the problems of women handloom Entrepreneurs in west Tripura district	Chingkhiri Debbarma, Dr.Gokul Acharjee and Sujoy Hazari	
5	Role of Higher Education Institutions as Mediators to Sustainable Development with a Light on Environmental Education	Jayanta Das	
6	Waste Management and Waste Segregation: A Case Study	Nakshatra Zaware, Aryaa Rathod, Tanaya Kulkarni, Mrudula Abhyankar, Mahika Jadhav, Trapti Agarwa	
7	Malnutrition in Schedule Caste and Schedule Tribes Children in India: Evidence from National Family Health Survey	Pankaj Kumar Mishra	
8	Factors Influencing Social Inclusion of Women: A Study on Entrepreneurial Support System in Tripura	Dr. Rajesh Chatterjee, Dr. Debarshi Mukherjee, Abhranil Bhattacharjee, Abdur RahmanChoudhury	
9	Optimization studies of traditional rice beer preparation method of Manipur	Shubhankar Debnath, and Pinku Chandra Nath	
10	Determinants of Rural Enterprise Performance in West Tripura, India	Priyabrata Roy & Pritam Roy	
11	Is the Impact of Policies on MSMEs Gender Biased? - A Sectoral Review	Chimi Das & Amrita Pramanick	
12	Total Factor Productivity of Manufacturing Sector among the Major States of India and Reasons thereof.	Waqar Ahmed & Ashish Nath	

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## **Action Points and Strategic Recommendation**

National Seminar on

"Emerging Issues & Trends of Socio-Economic Development in Rural Economy with special emphasis on Handloom and Handicraft Sector"

27th and 28th February 2023

ICFAI University Tripura Kamalghat, Tripura (West)

## Strategies for development of the Handloom and Handicraft Sector in Tripura:

- 1. There is a need for mapping handloom clusters in the state of Tripura. Implementation of cluster development as a tool bottlenecks and lacunae in the implementation process.
- 2. Research studies for conducting diagnostic studies on handloom clusters and mapping handloom clusters needs to be undertaken.
- 3. Issuance of weaver identity cards to genuine weavers
- 4. Educating artisans through vocational training and education. For a start Recognition of Prior Learning (RPL) short training programs may be conducted in collaboration with the Textile Sector Skill Council, New Delhi.
- 5. Giving access to artisans to participate in exhibitions at the local, regional, national and international level.
- 6. Promoting entrepreneurship amongst artisans through formation of Producer's Companies.

Specific Business Development Services required for development of micro handloom and handicraft enterprises here under

Sl No	Business activity	Business service/facility required	Scope for providing services
1	Procurement of raw materials	Traders and suppliers	Network with suppliers on PPP mode by Weavers Associations and Government agencies namely Weavers Service Centre, Ministry of Textiles, GOI, Tripura.
2	Storage of raw materials	Common Yarn depots	Establishing common yarn depots in the clusters to facilitate continuous supply of yarn
3	Weaving in working sheds	Working sheds	Need to provide working sheds to weavers on PPP mode.
4 .	Quality Control	Testing quality of products for international markets	Establishing Testing laboratories for yarn, dyes, colors, chemical testing through PPP mode
5	Technology Up gradation	Jacquard and dobby installation, repair of looms	Establishing Common Facilities Centre through PPP mode

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6	Market Research	Exploring regional, national and international markets, product innovation	
7	Designs	Upgrading of designs for catering to regional, national and international markets	Setting up design centers for new designs and up gradation of existing designs in collaboration with National Institute of Fashion Technology (NIFT ) and National Institute of Design (NID)
8	Brand Building	International brand building	Acquiring Handloom Mark for the most popular products in the cluster such as Risa, Rignai designs along with support of state government agencies.
9	Marketing outlets	Marketing outlets for the specialized products of Tripura	Setting up Marketing outlets outside Mizoram on a PPP mode by networking with the Govt/Co-operative agencies
10	Geographic Indication (GI)	WTO specifications	Obtaining GI for Risa and Rignai.
11	Training centers.	To improve the technical , managerial, financial and marketing skills of weavers, different levels of workers and supervisors	
12		entrepreneurs at national and	Organizing buyer-seller meets fairs at regional, national and international.
13	E-Commerce portal (interactive) for Thenzawl Cluster	Dissemination of information which is internet enabled through a database that could be accessed through E-Commerce portal which is interactive with the stakeholders like suppliers of raw materials, customers, dealers, financiers, etc.	up a cell in the Dept of

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## Proposed interventions for the Handloom and Handicraft Sector in Tripura

- 1. To set up a Living Lab and provide a convergence for varied stakeholders to discuss and brainstorm the issues by developing a network and linkages between various organizations, institutions, industries, and individuals.
- 2. To identify and analyse specific needs for community-centric skill development, training and interventions, and prepare a comprehensive report on the same.
- 3. To develop outcome-based approaches and STI solutions for quality skilling; better productivity; and, increased employability.
- Creating an Ecosystem by developing linkages between traditional and industry-based skills, and bringing together the local industries and outside industries.
- 5. To ensure empowerment through exposure to digital platforms and shaping their worldview; further, to incubate and promote start-ups and design studios working for their betterment, thus improving Livelihood System efficiency.
- 6. To propose interventions, STI solutions and develop recommendations, leading to setting up of independent enterprises, small-scale industries, and their linkages.

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## Action Point and Strategic Recommendation of Technical Session 1 & 2 on the theme of Handloom and Handicraft Sector

### **Technical Session-1**

Chair: Dr. Rama Ramswamy Rapporteur: Mr. Priyabrata Roy Date: 27.02.2023; Time: 02:45-05:00 PM

#### **Technical Session-2**

Chair: Dr. Bibhuti Ranjan Bhattacharjya, Rapporteur: Mr. Sankha Subhra Deb Date: 27.02.2023; Time: 02:45-05:00 PM

- 1. Implementation of handloom industry and weavers related central government schemes in the state.
- 2. More grassroots level education to the weaver's community.
- **3.** Introduction of low cost machinery.
- 4. Skill training.
- 5. Explore the options of foreign export for handicraft products.
- **6.** Explore the opportunity for income and employment generation in the rural areas.
- 7. Drawing up an effective market plan.
- 8. More awareness campaigns among city consumers.
- 9. Collaboration between organized and unorganized sectors.
- 10. Change the consumer perception about handloom products and their utility among potential consumers.
- 11. More robust steps to increase employment in handloom sector.
- **12.** Awareness campaigns among consumers out of state and country using social media.
- 13. Diagnostic studies on clusters and mapping clusters.
- **14.** Educating artisans.
- 15. Granting craftsmen access so they can take part in shows.
- 16. Encouraging the creation of producer's companies among craftspeople.
- 17. Identify the preferred marketing platforms for sales of handloom products.
- 18. To understand various promotional strategies adopted in the business of silk.
- 19. Handloom and handicraft sector in Tripura provide financial support to encourage the worker in Tripura.
- 20. Infrastructure facility needs to be support for workers.
- 21. It can increase the rural economy of Tripura.

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- **22.** Work on the factors that can create a sense of demand in the psychology of consumers related to handloom and handicraft sector.
- 23. Policies for removal of middle-man system.
- **24.** Improvement of marketing & promotion of Handloom and Handicraft product.
- 25. Financial aid & assistance to the artesian and weavers.

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## Action Point and Strategic Recommendation of Technical Session 3 on the theme of Banking and Microfinance Sector

### **Technical Session-3**

Chair: Dr. Ranjit Singh Rapporteur: Dr.Animesh Bhattacharjee Date: 28.02.2023; Time: 10:00 -01:30 PM

- To ensure women entrepreneurial growth, a single-point solution for cost effective financial assistance at collateral free as well as a recovery mechanism needed to be developed for easy access to banking services and legal formalities.
- 2. Going through the report it is evidently clear that number of SHGs in Northern and North Eastern region of the country are less. So, the study recommends increasing number of SHGs in those areas.
- 3. It is recommended that Government should also make efforts to increase contribution of MSME in other districts of Tripura.
- 4. Investments of banks needed to be channelized into most remunerative channels.
- 5. More studies needs to be undertaken in developing nations.

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## Action Point and Strategic Recommendation of Technical Session 4 on the theme of Agriculture and Allied Sector

#### **Technical Session-4**

Chair: Dr. Dhananjoy Datta Rapporteur: Dr. Soumitra Sankar Das Date: 28.02.2023; Time: 10:00 -01:30 PM

- 1. Organic farming is a good concept for agriculture which can reduces degradation for soil health in long term basis.
- 2. Government should increase the fund for organic farming.
- 3. Availability of organic inputs should be increases.
- 4. Improve awareness among the farmers.
- 5. Conservation agriculture has positive impact on biodiversity of the environment.
- 6. Alder based agricultural practices mostly used in Nagaland. It can also maintain the soil health.
- 7. New innovative technology for agriculture and other crops like drone can apply a specific region of the crop rather used to complete field. Drone can also detect insect pest and diseases of the crop.
- 8. Polythene mulch can also be used to increase the soil health in the field
- 9. Promote to cultivate blood fruit to the farmers of Tripura as blood fruit is a potential sources of natural Colorant.
- 10. Good sources of indigenous fruit which can help to increase the socio economic condition of the rural economy.
- 11. Millet market in Tripura should be increasing. Millets are a rich source of protein, fibre, minerals, iron and calcium. These are being increasingly recognised as climate-smart crops with enormous nutritional and health benefits.
- Problematic weed water hyacinth can be used for decorating purpose a good innovative idea. It can absorb 60-80% nitrogen from the soil. If proper awareness is done than it will be beneficial for rural people.
- 13. Diversification of Fish Species encourages fish farmers to diversify their production by introducing new fish species in the region can help to increase the overall profit margin. Improvement of Marketing Strategies for developing better marketing strategies for the fish produced by the farmers can help to increase the profit margin. Providing better training and technical assistance

ICFAI University Tripura Kamalghat, Tripura (West) to fish farmers can help them to improve their production techniques, reduce losses, and increase the yield.

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## Action Point and Strategic Recommendation of Technical Session 5 on the theme of Social Structure culture and Environment Sector

### **Technical Session-5**

Chair: Dr. Sujit Deb Rapporteur: Prof. Tamladipta Sen Date: 28.02.2023; Time: 10:00 -01:30 PM

- 1. Necessary to frame both micro and macro-level policies that are desired to enhance the physical infrastructure as well as health & education besides revamping the government structure in the rural areas.
- **2.** Redesigning of the marketing mix as per volatility in the market is the need of the hour.
- 3. To create policies for women's empowerment so that it can uplift the morale of the women of rural areas so that they invest their time with full dedication.
- 4. Recycling & reusing of fashion can lead to a sustainable development of environment as a trash from the fashion industry is destroying the aquatic ecosystem.
- 5. Chapterisation of sustainable environment education in higher education.
- **6.** Formation of specific guidelines for implementing sustainable development strategies on higher education.
- 7. Benchmarking of sustainable activities.
- **8.** Awareness creation by higher education institution for the usage of renewable sources.
- 9. Association among Policy maker, education dept. & researcher.
- **10.** Allocation of funds for more research.
- 11. Implementation of effective climate smart approach.

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### REGISTRATION

6.N	Name of first Author/ Attendee (Prof/Dr/Mr/Mrs/Ms)	Designation	Organization/ University/ Institution	Title of the Paper	Signature
1.		PhD Scholar	Tripura Inclusion of Women: A Study on Entrepreneurial Support System in Tripura  Jawaharlal Nehru University, New Delhi Factors Influencing Social Inclusion of Women: A Study on Entrepreneurial Support System in Tripura  Malnutrition in Schedule Caste and Schedule Tribes Children in India: Evidence from National Family Health Survey		De Dep
2.	Mr. Pankaj Kumar Mishra	Research Scholar			
3.	Mr Arup Sinha		Govt. College of Art and Craft, Higher Education		
4.	Mrs. Sevika Research Debbarma Scholar		Tripura University	Opportunities and Challenges of Traditional Handloom Entrepreneurs : A Case Study of Agartala city	(24/02/2
 5.	Ms Ranitha D Shira	Assistant Professor	ICFAI University, Meghalaya	A Study on Buying Behavior toward Handicraft Products in Garo Hills	(Dr
6.	Dr. Debasree Saha	Assistant Professor	College of Agriculture, Tripura	Hyacinth- Way of Rura Livelihood Development	ZF12123
7	. Ms. Anandika Kar	PG Student	College of Agriculture, Tripura	Potentiality of Mille Cultivation in Tripura	vanonia 120
8	Ms Triparna Das Chaudhuri	PG Student	College o Agriculture, Tripura	Cultivation in Tripura	Das Chouding
9	Mrs Bijayata chettri	Research scholar	University of North Bengal	of Challenges and opportunitie for cottage industries is Sikkim	S Duthi
10	). Dr. Utpal Giri	Assistant Professor	College Control Agriculture,	Potentiality of Mille Cultivation in Tripura	To the
13	Mr. Bobilar 1. Debbarma	PG Student		of Agri-Drones, Innovative Precision Technolog towards Sustainab	y Dobilan Folk

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				Agriculture	
-			^		@ n = 1 - 1
<u></u>	Mr. Suhrid Teli	PG Student	College of Agriculture, Tripura	Climate Smart Agriculture: Strategies to Achieve Sustainable Food Security	Sulvind Teli
13.	Dr Durga Prasad Awasthi	Asstt. Prof. (Plant Pathology)	College of Agriculture, Tripura	Presence of <u>Sarocladium</u> <u>oryzae</u> causing sheath rot of paddy in Tripura – A potential threat for paddy and bamboo cultivation	Dework.
14.	Ms Paramita Lodh	PG Student	College of Agriculture, Tripura	Conservation Agriculture- North-East Perspective	Paramidah 27/2/23
15.	Madhusmita Sarkar	Scholar	Vidyasagar University	Microfinance, Self-Help- Group and Women Empowerment: Literature Review	
16.	Mr Waqar Ahmed	Research Scholar	Tripura University	Total Factor Productivity of Manufacturing Sector among the Major States of India and Reasons thereof	21/2/2
17.	Mrs Rithi Majumdar	Assistant professor	Rabindranath Thakur Mahavidyalaya, Bishalgarh	Study of Fertility Disorder of Cattle in Bishalgarh Area and Its Effect in Sustainable Development	102/2 102/2
18.	Mr. Abhranil Bhattacharjee	Research Scholar (CSSEIP)	Tripura University (A Central University)	on Entrepreneurial Support System in Tripura	
19	Dr. ABHIJIT SAHA	ASSISTANT PROFESSOR	College of Agriculture, Tripura	mays L.) Under Differen Irrigation Regimes and Mulching Practices in Nev Alluvial Zone of West Benga	77/2/2
20	Ms Fidiarity Kharumnuid	Research Scholar	Tripura University	Meghalaya Tourism it potential on Developmer and Economic Growth	

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#### **REGISTRATION**

	21.	Mr. JAYANTA DAS	Research Scholar	Tripura University	Role of Higher Education Institutions as Mediators to Sustainable Development with a Light on	Tayanta Das 28/02/2023
	22.	Gauri Kathju Purohit	Research Scholar	The IIS University	Environmental Education Tapping the Power of Geographical Indications to Uplift Economic Condition of Textile Artisans	
	23.	Dr. Banani Das	Assistant professor	College of Agriculture, Tripura	Status of Handloom and Handicraft Sector in India: An Overview	0 2 1 2 2 3
	24.	Dr. H. LEMBISANA DEVI	Scientist (Horticulture )	ICAR RC for NEHR Tripura Centre	Blood fruit ( <u>Haematocarpus</u> <u>Validus</u> (Miers.) Bakh. F. ex Forman: A Potential natural colourant found in Tripura	in by and
	25.	Mrs. Bhargabi Chakraborty	Block Technology Manager	Hazamara Agri- Subdivision	A Study on the Status of Handloom Artisans in the West Tripura District of Tripura, India	
	26.	Shruti Shahi	Research Scholar	Mizoram University	FINANCIAL INCLUSION AND FINANCIAL LITERACY OF HANDLOOM WEAVERS IN MIZORAM	
	27.	Sheèla Suryanaro yana	Associate	University Byderapal	Occupational Health Hozard & Socio- eco backgood of Hard	
	28.	Arijit Chakoabordy	Lectures	Torpusa, Kasi Univ. Nazrew Wahavidyal		Aujit 27/2019
Ļ	29.	Bikram Das	scholar	Mizorano University	An Analytical Istudy on MSME in Beo. Devel. of Tripuma	Birram_ 28/2/29
J	30.	Dr. Bidhu Kanti Das	ASS Ociate Probassor		14	1981/2000_ 28/21/28

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### **REGISTRATION**

	S.N	Name of first Author/ Attendee (Prof/Dr/Mr/Mrs/Ms)	Designation	Organization/ University/ Institution	Title of the Paper	Signature
	1.	Dr. Zigisha Pujsri	Associate Professor	ICFAI University Tripura	Role of Geographical indication in promoting the Handloom/Textile Industries in India (with special Reference to Handloom of Odisha)	2. Gari
/	2.	Dr. Nayanjyoty Das	Assistant professor	ICFAI University Tripura	Role of Geographical indication in promoting the Handloom/Textile Industries in India (with special Reference to Handloom of Odisha)	Merios
,	3.	Ms.Susmita Sinha	B.Com	ICFAI University Tripura	Role of MSME in Growth of Indian Economy with Special Reference to Handloom Sector	Susmits Slinks
1	4.	Ms. Rupayani Sutradhar	МВА	ICFAI University Tripura	Performance of Self Help Group through Microfinance- A Comparative Study	Repayani Susua har
	5.	Ms.Anamika Debnath	MBA	ICFAI University Tripura	A Study on the Status of Handloom Artisans in the West Tripura District of Tripura, India	Anamika Zebnath
`	6.	Mr.Rajesh Reang	MBA	ICFAI University Tripura	Socio-Economic Conditions of Handloom Weavers in Dhalai district of Tripura: A Case Study of the Reang Tribes	Rajesh Keang
,	7.	Mr.Mrinal Deb	МВА	ICFAI University Tripura	A Study on the Consumer perception towards Handloom products in Tripura	-Minal (As.
` .	8.	Mr. Akash Das	MBA	ICFAI University Tripura	Attitude & Perception study of Handloom buyers in Tripura: A Survey	AKash Da)
, .	9.	Ms. Parna Datta	МВА	ICFAI University Tripura	A Study on Effectiveness of Instagram as a medium of Promotion	

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10.	Mr. Anubrata Dhar Chaudhuri	MBA	ICFAI University Tripura	Public Sector Banks of India	Made I. J. was
11.	Ms. Nibedita Das	МВА	ICFAI University Tripura	Marketing Activities on Consumer Buying Behaviour: A Study in the context of Tripura	Nibedita pas
12.	Ms. Jahnabi Debbarma	MBA-RM	ICFAI University Tripura	A Study on the Factors Influencing Organic Agricultural Production in Sepahijala Tripura District of Tripura, India	Jahnabi Debbarna
13.	Mr. Subrata Debanth	MBA-RM	ICFAI University Tripura	Utilization of Power Tiller by The farmers of Gomati district	Subreata, Deborata
14.	Ms. Chingkhiri Debbarma	MBA-RM	ICFAI University Tripura	A study on the problems of women handloom Entrepreneurs in west Tripura district	
w.	Mrs. Kaberi De	PhD Scholar	ICFAI University Tripura	perception towards Handloom products in Tripura	Holya. or
16.	Mr. Samarjit Sah	PhD Scholar	ICFAI University Tripura	Rural banks and National Bank of Agriculture and Rural	8 8
17.	Mr. Sankha Subhra Deb	PhD Scholar	ICFAI University Tripura	10,010	1010
18.	. Mr. Priyabrata Roy	PhD Scholar	ICFAI University Tripura	Performance in West Tripura India	2020
19	. Mr. Pritam Roy	PhD Scholar	ICFAI University Tripura	Performance in West Tripura India	2 Amount 12/2022
	11. 12. 13. 14. 16. 17. 18	10. Chaudhuri  11. Ms. Nibedita Das  12. Ms. Jahnabi Debbarma  13. Mr. Subrata Debanth  14. Ms. Chingkhiri Debbarma  16. Mrs. Kaberi De  16. Mr. Samarjit Sah  17. Mr. Sankha Subhra Deb  18. Mr. Priyabrata Roy	10. Chaudhuri  11. Ms. Nibedita Das  MBA  12. Ms. Jahnabi MBA-RM  13. Mr. Subrata Debanth MBA-RM  14. Ms. Chingkhiri Debbarma  Mrs. Kaberi De  PhD Scholar  16. Mr. Samarjit Sah  PhD Scholar  17. Mr. Sankha Subhra PhD Scholar  18. Mr. Priyabrata Roy  PhD Scholar  PhD Scholar	10. Mr. Anubrata Dhar Chaudhuri  MBA  University Tripura  ICFAI University Tripura  12. Ms. Jahnabi Debbarma  MBA-RM  ICFAI University Tripura  ICFAI University Tripura	Mr. Anubrata Dhar Chaudhuri   MBA

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	20.	Mr. Sanjib Chakraborty	Placement Incharge	ICFAI University Tripura	A Study on the Economic Situation of Handloom Weavers in North Eastern Region of India: A Tale from Handloom Census	Smit books
1	21.	Ms. Debadrita Dev	Research Scholar	ICFAI University Tripura	A Study on the Role of NABARD's Self Help Group- Bank Linkage Programme in Rural Tripura	Jan Jan
,	22.	Dr. Annesha Saha	Assistant professor	ICFAI University Tripura	7,	And This
/	23,	Dr. Dipangshu Dev Chowdhury	Assistant professor	ICFAI University Tripura	- ))	100 27 1 1 W
	24.	Dr. Sunil Kumar	Assistant professor	ICFAI University Tripura		
	25.	Dr. Pradip Chouhan	Assistant professor	ICFAI University Tripura		
	26.	Dr. Mamoni Kalita	Assistant professor	ICFAI University Tripura		
	27.	Dr. Gokul Acharjee	Assistant professor	ICFAI University Tripura		
	28.	Dr Trinankur Dey	Assistant professor	ICFAI University Tripura		Name of the second
	29.	Dr. Abhijit Pandit	Associate Professor	ICFAI University Tripura	The impact of Social media marketing Activities, on consumer being schaviour.	Jos 27/07/2000
,	30	Dr. Sujit Deb	Professor	ICFAI University Tripura		for John.
	31	Prof. Sujoy Hazari	Assistant professor	ICFAI University Tripura		
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## For the Weavers/ Artisans

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S.N	Name of Artisans/ Weavers	Village	District	Activity/ Organization	Ph Number	Signature
1.	Reboulathoy Casodhm.	Muhurcipurc	South BiTripur	Muhuripur T. 255 kod	9436130504	<u></u>
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20.	Jayesta Acharija	Agartala	West Tripura	Sonaram Tisisis Hd	FE88 FE 282F	Ther
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29.						

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## ORGANIZING COMMITTEE

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Prof. (Dr.) Biplab Halder, Hon'ble Vice-Chancellor, IUT.

PATRON:

Dr. Avula Ranganath, Registrar, IUT.

Prof. (Dr.) Subhasish Chatterjee, Dean -Academic Affairs and Director -

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Prof. Sujoy Hazari (Seminar Convener), Assistant Professor, FMC, IUT.

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Dr. Mamoni Kalita (Secretary) AssociateProfessor &HoD of BBA, FMC, IUT.

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Mr. Rajarshi Bhowmik, Manager, IUT.

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Ms. Tapti Laskar, Education. Officer, IUT.

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Mr. Priyabrata Roy, Research Scholar, FMC, IUT.

Mr. Sankha Subhra Deb, Research Scholar, FMC, IUT.

Ms. Debadrita Dev. Research Scholar, FMC, IUT.

Mr. Pritam Roy, Research Scholar, FMC, IUT.

Mr. Rajarshi Majumder, Research Scholar, FMC, IUT.

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## The ICFAI University, Tripura

Established under section 4(2) of the Institute of Chartered Financial Analysts of India University, Tripura Act. 2004 Campus Address: Kamalghat (Near Agartala), PIN - 799210, Tel: 0381-2865752/62, Fax: 0381-2865754 Website: www.iutripura.edu.in, Email: registrar@iutripura.edu.in

Date: 21-02-2023.

## Faculty of Management & Commerce

## **NOTICE**

Faculty of Management & Commerce with collaboration with NABARD is going to organize two days Seminar on the topic 'Emerging Issues & Trends in Socio-Economic Development in Rural Economy; with special emphasis on handloom and handicraft sector as well as the exhibition cum sales program by the rural artisans of Tripura on the 27<sup>th</sup> and 28<sup>th</sup> February 2023in offline mode.

Dr. Sujit Deb Dean FMC

IUT Dean
Faculty of Management &

Registrar, ICFAI University Tripura Kamalghat, Tripura (Wesi)





Inaugural Ceremony of the National Seminar on "Emerging Issues & Trends of Socio-Economic Development in Rural Economy with special emphasis on Handloom and Handicraft sector" held on February 27, 2023.



Address by the Chief Guest, Dr. Rama Ramswamy, Associate Professor, Department of Commerce, Mizoram University, India during National Seminar on "Emerging Issues & Trends of Socio-Economic Development in Rural Economy with special emphasis on Handloom and Handicraft sector" held on February 27,



Address by Dr. Bibhuti Ranjan
Bhattacharjya, Assistant Professor,
Department of Design, IIT Roorkee,
Uttarakhand, India during National Seminar
on "Emerging Issues & Trends of SocioEconomic Development in Rural Economy
with special emphasis on Handloom and
Handicraft sector" held on February 27,
2023.

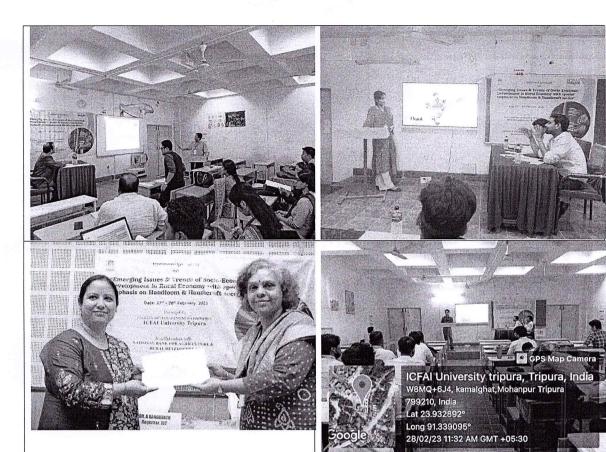


Address by Mr. Loken Das, General Manager, NABARD, Agartala during National Seminar on "Emerging Issues & Trends of Socio-Economic Development in Rural Economy with special emphasis on Handloom and Handicraft sector" held on February 27, 2023.



National Seminar on "Emerging Issues & Trends of Socio-Economic Development in Rural Economy with special emphasis on Handloom and Handicraft sector" held on February 27, 2023.

Registrar, ICFAI University Tripura Kamalghat, Tripura (West)



Presentation of research work by participants and certificate distribution during the National Seminar on "Emerging Issues & Trends of Socio-Economic Development in Rural Economy with special emphasis on Handloom and Handicraft sector" held on February 27, 2023.



Weavers-Scientists interaction during the exhibition of handloom and handicraft products by rural Artisans and Weavers from Tripura at the ICFAI University held on February 27 and 28, 2023.



## National Seminar on Handloom, Handicraft sector held at ICFAI



Observer Reporter

Agartala: Mar 01. Faculty of Management and Commerce of the ICFAI University Tripura has organized a National Seminar on "Emerging Issues & Trends of Socio-Economic Development in Rural Economy with special emphasis on Handloom and Handicraft - sector" in collaboration with NABARD

OBSERVER

University Dr. Bibbuti Ranjan Bhattacharjya, Assistant Professor of IT Roorkee, Mr. Loken Das, General Manager of NABARD, Dr. Ranjit Singh, Professor, IIIT Allahabad and Dr. A Ranganath, Registrar of the ICFAI University Tripura.

A total of 65 numbers of research papers were presented by the participants from various

02/03/23

followed by a strategic plan An "exhibition and sale of handloom and handloraft products" organized in the University

campus.
Forty weavers from different districts like Gomati, Sepahijala, Khowai, and West Tripura have participated in the exhibition. The University has

Handicratt sector in participants from various collaboration with NABARD renowned institutions of extended its hanks to the from February 27 to 28.

The Seminar was india. India. The seminar was designed required by Dr Rama The seminar was designed Faculty members of Ramswany, Associate Professor of Mizoram sessions and discussions seminar & exhibition.

12x 13 Cm

## Seminar on Handloom and handicraft held at ICFAI

MEC Report

Agartala, Mar 1: Faculty of Management and Commerce of the ICFAI University Tripura has organized a National Seminar on "Emerging Issues & Trends of Socio-Economic Development in Rural Economy with special emphusis on Handloom and Handi-craft sector" in collaboration with NABARD from 27th to 28th February 2023. The Seminar was inaugurated by Dr. Rama Ramswamy, Associate Professor of Mizoram Univer-

tacharjya, Assistant Professor of IIT Roorkee, Mr. Loken Das, General Manager of NABARD, Dr. Ranjit Singh, Professor, IIIT Allahabad and Dr. A Ranganath, Registrar of the ICFAI University Tripura. Total 65 numbers of research papers were presented by the participants from various renowned institutions of seventeen different states of

The seminar was designed with different technical sessions and discussions fol-

lowed by a strategic plan. An "exhibition and sale of hand-loom and handicraft products" also were also organized in the also were also organized in the University campus. Forty weavers from different dis-triets like Gomati, Sepahijala, Khowai, and West Tripura have participated in the exhibition. The University has ex-tended its thanks to the organizing committee and all the faculty members of Faculty & Commerce for successful completion of the seminar & exhibition. A release issued by the university said.

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9×12 cm

### ইকফাইয়ে তাঁত হস্তশিল্প বিষয়ের উপর জাতীয় সেমিনার অনুষ্ঠিত

আগরতলা

১ মার্চ ঃ ইকফাই ইউনিভার্সিটি ত্রিপরার ম্যানেজমেন্ট এবং কমার্স বিভাগ এবং নাবার্ড ত্রিপুরার বৌধ উদ্যোগে গত ২৭ থেকে ২৮ ফেব্রনারী অনুষ্ঠিত হয়ে গেলো 'গ্রামীণ অর্থনীতিতে তাঁত ও হস্তশিষ্কের মাধ্যমে আর্থ-সামাজিক উল্লয়নের চলমান সমস্যা এবং প্রবনতা' শীর্ষক বিযয়ে এক জাতীয় সেমিনার। সেমিনারটি উদ্বোধন করেন মিজোরাম বিশ্ববিদ্যালয়ের সহযোগী অধ্যাপক ড. রমা রামস্বামী, আইআইটি করকির সহকারী অধ্যাপক ড. বিভূতি রঞ্জন ভট্টাচার্য, नावार्डत रक्षनारतेल गााजकात লোকেন দাস, আইআইআইটি এলাহারাদের অধ্যাপক ড. রঞ্জিত সিং এবং ড. এ রঙ্গনাথ, ইকফাই ইউনিভাসিটি ত্রিপুরার রেজিস্ট্রার প্রমুখ। সেমিনারটি করেকটি কৌশলগত পরিকল্পনা অনুসরণ করে বিভিন্ন প্রযুক্তিগত সেশন এবং আলোচনার বিভাগে বিভক্ত ছিল। ভারতের ১৭টি রাজ্যের বিভিন্ন নামি শিক্ষা প্রতিষ্ঠান পেকে অংশগ্রহণকারীরা মোট ৬৫টি গবেষণাপত্র উপস্থাপন করেন। এছড়াও ওই দিনওলিতে বিশ্ববিদ্যালয় ক্যাম্পাসে তাঁত ও হস্তলিল্পের পণোর প্রদর্শনী ও বিক্রয়ের আয়োজন করা হয়। গোমতী, সিপাহিজলা, খোয়াই, পশ্চিম ত্রিপুরার মতো বিভিন্ন জেলার ৪০ জন তাঁতি ও হস্তদিল্লী প্রদর্শনীতে অংশ নিয়েছেন। সেমিনার ও প্রদর্শনী সফলভাবে সম্পন্ন করার জন্য বিশ্ববিদ্যালয়ের পক্ষ থেকে আয়োজক কমিটি এবং ফ্যাকান্টি অব ম্যানেজমেন্ট আগু ক্যার্সের সকল সদসাদের ধন্যবাদ জানানো হয়েছে।

Doenik Sambad 02/03/23

> ICEAI University Tripura Kamalghat, Tripura (West)

## ইকফাই এ তাঁত ও হস্তশিল্প বিষয়ের উপর জাতীয় সেমিনার অনুষ্ঠিত



কামালঘাট।। ইকফাই ইউনিভার্সিটি ত্রিপুরার ম্যানেজমেন্ট এবং কমার্স বিভাগ এবং নাবার্ড ত্রিপুরার যৌথ উদ্যোগে গত হস্তশিল্প এর থেকে २४ एक्क्याती २०२० देश वान्षिक হয়ে গেলো 'গ্রামীণ অর্থনীতিতে তাঁত ও মাধ্যমে আর্থ-সামাজিক উলয়নের চলমান সমসা এবং প্রবণতা' শীর্ষক বিষয়ে এক জাতীয় সেমিনার। সেমিনারটি উছোধন করেন মিজোরাম বিশ্ববিদ্যালয়ের সহযোগী অধ্যাপক ড. বুমা অধ্যাপক ড. বিভৃতি রঞ্জন ভট্টাচার্য্য,

নাবার্ডের জেনারেল ম্যানেজার লোকেন লস, আইআইআইটি এলাহবোদের অধ্যাপক ড. রঞ্জিত ইউনিভার্সিটি ত্রিপুরার রেজিস্টার প্রমুখ। সেমিনারটি করেকটি কৌশলগত পরিকল্পনা অনুসরণ করে বিভিন্ন প্রযুক্তিগত সেশন এবং আলোচনার বিভাগে বিভক্ত ছিল। ভারতের ১৭টি রাজ্যের বিভিন্ন নামী শিক্ষা প্রতিষ্ঠান থেকে অংশগ্ৰহণকাৰীৰা মোট রামস্বামী, আইআইটি সহকারী ৬৫টি গবেষণা পত্র উপস্থাপন কবেন। এছাড়াও ওই দিন

ওলিতে বিশ্ববিদ্যালয় ক্যাম্পাসে তাত ও হস্তশিলের পণ্যের প্রদর্শনী ও বিক্রয় এর আয়োজন করা হয়। গোমতী, সিপাহীজলা, খোয়াই, পশ্চিম ত্রিপুরার মতো বিভিন্ন জেলার ৪০ জন তাঁতি ও হস্ত শিল্পী প্রদর্শনীতে অংশ নিয়েছেন। সেমিনার ও প্রদর্শনী সফলভাবে সম্পন্ন করার জন্য বিশ্ববিদ্যালয় এর পক্ষ থেকে আয়োজক কমিটি এবং ফ্যাকাল্টি অফ ম্যানেজমেণ্ট এন্ড কমর্সে এর সকল সদস্যদের ধন্যবাদ জানানো इत्याद्य ।

Ausker Fariyad 02/03/23 16×12 cm

## National Seminar on Handloom and Handicraft sector held at ICFAI

Agartala, Mar 01: Faculty of Management and Commerce of the ICFAI

with NABARD from 27th to 28th February 2023. The Seminar was inaugurated by



University Tripura has Dr. Rama Ramswamy, Sepahijala, Khowai, and West Organized a National Associate Professor of Seminar on "Emerging Mizoram University, Dr. Issues & Trends of Socio-Bibhut Ranjan Bettacharjya, Assistant. Grandle Economy with Professor of IIT Roorkee, special emphasis on Handloom and Handloration Manager of NABARD, Dr. sector" in collaboration Ranjit Singh, Professor, IIIT Completion of the seminar & exhibition.

Allahabad and Dr. Allahabad and Dr. A Ranganath, Registrar of the ICFAI University Tripura. Total 65 numbers of research papers were presented by the presented by the participants from various renowned institutions of seventeen different states of India. The seminar was designed with different technical sessions and discussions followed by a strategic plan, An "exhibition and sale of handloom and handicraft products" also were also organized in the University campus. Forty weavers from different districts like Gomati,

TRIPURA TIMES

02/03/23

University Tripura Kamalghat, Tripura (West)

## ইকফাই এ তাঁত ও হস্তশিল্প বিষয়ের উপর জাতীয় সেমিনার অনুষ্ঠিত



কামালঘাট।। ইকফাই ইউনিভার্সিটি ত্রিপুররে ম্যানেজমেন্ট এবং কমার্স বিভাগ এবং নাবার্ড ত্রিপুরার যৌথ হয়ে গেলো 'গ্রামীণ অর্থনীতিতে প্রমুখ। দেমিনারটি কয়েকটি উলয়নের চলমান সমসা এবং প্রবণতা' শীর্ষক বিষয়ে এক জাতীয় সেমিনার। সেমিনারটি উত্থোধন করেন মিজোরাম বিশ্ববিদ্যালয়ের সহযোগী অধ্যাপক ড. রুমা রামস্বামী, আইআইটি সহকারী অধ্যাপক ড. বিভূতি রঞ্জন ভট্টাচার্য্য,

নাবার্ডের জেনারেল ম্যানেভার লোকেন দাস, আইআইআইটি এলাহাবানের অধ্যাপক ড. রঞ্জিত উদ্যোগে গত হস্তশিল্প এর থেকে সিং এবং ড. এ রঙ্গনাথ, ইকফাই ২৮ ফ্রেক্যারী ২০২৩ ইং অনুষ্ঠিত ইউনিভার্সিটি ত্রিপুরার রেজিস্টার তাঁত ও মাধামে আর্থ-সামাজিক কৌশলগত পরিকল্পনা অনুসরণ করে বিভিন্ন প্রযুক্তিগত সেশন এবং আলোচনার বিভাগে বিভক্ত ছিল। ভারতের ১৭টি রাজ্যের বিভিন্ন নামী শিক্ষা প্রতিষ্ঠান থেকে অংশগ্ৰহণকাৰীৰা মোট ৬৫টি গবেহণা পত্ৰ উপস্থাপন ক্ৰেন। এছাড়াও ওই দিন

গুলিতে বিশ্ববিদ্যালয় ক্যাম্পাসে তাত ও হস্তশিলের পণ্যের প্রদর্শনী ও বিক্রয় এর আয়োজন করা হয়। গোমতী, সিপাহীজলা, খোয়াই, পশ্চিম ত্রিপুরার মতো বিভিন্ন জেলার ৪০ জন তাঁতি ও रुष्ट भिन्नी **अ**नर्भनीएउ याः भ নিয়েছেন। সেমিনার ও প্রদর্শনী সফলভাবে সম্পন্ন করার জনা বিশ্ববিদ্যালয় এর পক্ষ থেকে আয়োজক কমিটি এবং ফাকোল্টি অন্ত খ্যানজ্জমেন্ট এন্ড কমর্সে এর সকল সদস্যদের ধন্যবদে জানানো २८११८६।

16×12 cm Aujker Farigad 02/03/23

National Seminar on Handloom and Handicraft sector held at ICFAI

Agartala, Mar 01: Faculty with NABARD from 27th to of Management and 28th February 2023. The Commerce of the ICFAI Seminar was inaugurated by



University Tripura has Dr. Rama Ramswamy, organized a National Associate Professor of organized a National Associate Professor of Seminar on "Emerging Mizoram University, Dr. Issues & Trends of Socio-Bibhut Ranjan Economic Development in Bhattacharjya, Assistant. Rural Economy with special emphasis on Handloom and Handloraft Sector" in collaboration Ranjit Singh, Professor, IIIT Commerce for successful expension of the seminar & Sector in collaboration Ranjit Singh, Professor, IIIT Commerce for successful expension of the seminar & Sector in collaboration Ranjit Singh, Professor, IIIT Commerce for successful expension of the seminar & Sector in collaboration Ranjit Singh, Professor, IIIT Commerce for successful expension of the seminar & Sector in collaboration Ranjit Singh, Professor, IIIT Commerce for successful expension of the seminar & Sector in collaboration Ranjit Singh, Professor, IIIT Commerce for successful expension of the seminar & Sector in collaboration in the Commerce for Sector in the University has extended its thanks to the faculty members of Faculty & Sector in Commerce for successful expension in the University has extended its thanks to the faculty members of Faculty & Sector in Collaboration in the Commerce for Sector in Commerce for Secto

Allahabad and Dr. A Ranganath, Registrar of the ICFAI University Tripura. research papers were presented by the Total 65 numbers presented by the participants from various renowned institutions of seventeen different states of India. The seminar was designed with different technical sessions and discussions followed by a strategic plan. An "exhibition and sale of handloom and handicraft products" also were also organized in the University campus. Forty weavers from different districts like Gomati, Sepahijala, Khowai, and West Tripura have participated in the

TRIPURA TIMES 02/03/23

ICFAI University Tripura Kamalghat, Tripura (West)



An approved "In-house R&D Centre" Dept. of Scientific and Industrial Research (DSIR), Government of India

## CERTIFICA TE

This is to certify that,

1. Debjit Majumder

(21IUT0010133)

2. Vivek Paul

(21IUT0010099)

of ICFAI University, Tripura have successfully completed the Project on "Manufacturing and Quality Testing Process of Fluid Controls Valves, Manifolds, Fittings, Clamps and Flanges for a Variety of Applications" for under the guidance of Mr. Girish Thakur, Fluid Controls Pvt. Ltd., Chakan, Pune and Dr. Amit Kumar Rana of ICFAI University, Tripura, for the period from June 12th 2024 to July 11th 2024. During this period, students were found to be punctual, sincere, and hardworking and showed keen interest in the work during the period.

We wish all the best in their future endeavors.

Authorized Signator

Registrar, Tripura (West)
Kamalghat, Tripura

"Empowering Possibilities"

Website: www.super-hoze.com

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Dated: 15-07-2024

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## TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Mr**. **Kishalay Debbarma S/o Sh**. **Jogendra Debbarma** had successfully completed the Internship from 10<sup>th</sup> **June**, 2024 to 13<sup>th</sup> **July**, 2024 at our Works (Baddi). We wish him all the success in his future life.

for SUPER HOZE INDUSTRIES PVT. LTD.

Authorised Signatory

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Dated: 15-07-2024

## TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. Pritam Baishya S/o Sh. Monoranjan Baishya had successfully completed the Internship from 10<sup>th</sup> June, 2024 to 13<sup>th</sup> July, 2024 at our Works (Baddi). We wish him all the success in his future life.

OF SUPER HOZE INDUSTRIES PVT. LTD.

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SUPER HOZE INDUSTRIES PVT. LTD

MANUFACTURER OF HYDRAULIC, INDUSTRIAL, AUTOMOTIVE & LPG HOSES

Phone: 0120-4854000, Fax: 4854020 Email: contact@super-hoze.com

Dated: 15-07-2024

## TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. Rodika Molsom S/o Sh. Sotan Singh Molsom had successfully completed the Internship from 10<sup>th</sup> June, 2024 to 13<sup>th</sup> July, 2024 at our Works (Baddi). We wish him all the success in his future life.

for SUPER HOZE INDUSTRIES PVT. LTD.

Authorised Signatory

Ar.

Ragistrar, Tripura (West Kamalghat, Tripura (West)

## ICFAI introduced industry relevant course on Hydraulic Systems & Applications

Mechanical Engineering Department of the ICFAI University Tripura has introduced an industry-relevant course on "Hydraulic Systems and Applications". It will be an integral part of the academic curriculum.

A group of industry professionals and well-known academicians attended an inauguration program to formally introduce the course on Monday. The course was inaugurated by Chief Guest Professor (Dr.) Madhusudan Chakraborty, former Professor and Deputy Director, IIT Kharagpur, and former founder Director of IIT Bhubaneswar, and currently Emeritus Professor of ICFAI University Tripura, resource person Er. Ambarish Chatterjee, Principal Consultant of FCP Index and Connections, Pune, and Dr. Raja Chakraborty, Professor of Tripura Institute of Technology and Chairman of try Tripura Board of Joint En-

Along with the dignitaries, Prof.(Dr.) A Ranganath, Registrar, and Dr. Priyangshu Rana Borthakur, Dean of the University, were also there on the dais. The dignitaries explained various aspects of learning hydraulic systems and applications with presentations and easy ex-amples of hydraulic applications in different sectors of used in different market segindustries, including production industries.

It is a 30-hour course designed by industry experts. power hydraulic, power gen-



It will be taught by experts from the industry. Students will get hands-on training on "Hydraulic Systems and Applications." They will be able to do live projects and internships in the relevant discipline and will get opportunities for placement in the relevant discipline in the indus-

The main objective of the trance Examination, as Guest course is to provide a holis-of Honor. . . tic view of the usage of hydraulic systems in industrial components and applications aimed at high-performance motion and control technology in the industry.

Students will acquire knowledge about comprehensive understanding of hydraulic components and systems, which can be related to various applications ments such as the construction and infrastructure sector, heavy engineering,

cration, mining, railways, defense, and automation indus-

It will also help to increase employability in these fastmoving industry segments. Once the participants have successfully completed the training and hands-on session with theoretical knowledge, they will be equipped with the abilities that are necessary for professional work and become ready for the industry. A certificate will be provided after the successful completion of the training program.

About 200 students from TTAADC Polytechnic Institute, Tripura Polytechnic Institute, CIPET Agartala, and ICFAI University Tripura participated in the training program. The program was coordinated by Dr. Prasanta Kumar Sinha, Principal of the Faculty of Science and Technology of the ICFAI University in Tripura.

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## ICFAI introduces industry relevant course on Hydraulic Systems

Times News

Agartala, Mar 19: The Mechanical Engineering Department of the ICFAI University Tripura has introduced an industry-relevant course on "Hydraulic Systems and Applications". It will be an integral part of the academic curriculum.

On March 18, 2024, a group of industry professionals and well-known academi-cians attended an inauguration program to formally introduce the course. The course was inaugurated by Chief Guest Professor (Dr.) Madhusudan Chakraborty, former Professor and Deputy Director, IIT Kharagpur, and former founder Director of HT Bhubaneswar, and currently Emeritus Professor of experts from the industry. hydraulic, power generation, ICFAI University Tripura, Students will get hands-on mining, railways, defense, resource person Er. Am- training on "Hydraulic Sys- and automation industries." rently Emeritus Professor of

barish Chatterjee, Principal Consultant of FCP Index and Technology and Chairman of Tripura Board of Joint Entrance Examination, as Guest of Honor. Along with the dignitaries, Prof.(Dr.) A Runganath, Registrar, and Dr. Priyangshu Rana Borthakur, Dean of the University, were also there on the dais. The dignituries explained various aspects of learning hydraulic systems and applications with presentations and easy examples of hydraulic applications in different sectors of industries, including produc-tion industries. It is a 30-hour course designed by industry experts. It will be taught by

will be able to do live projects Connections, Pune, and Salary Raja Chakraborty, Professor of Tripura Institute of opportunities for placement in the relevant discipling in the relevant discipling Connections, Pune, and Dr. and internships in the relin the industry. The main objective of the course is to provide a holistic view of the usage of hydraulic systems in industrial components and applications aimed at high-performance motion and control technology in the industry. Students will acquire knowledge about comprehensive understanding of hydraulic components and systems, which can be related to various applications used in different market segments such as the construction and infrastructure sector, heavy engineering, power and automation industries.

It will also help to increase employability in these fastmoving industry segments. Once the participants have successfully completed the training and hands-on session with theoretical knowledge, they will be equipped with the abilities that are necessary for professional work and become ready for the industry.

A certificate will be provided after the successful completion of the training program. About 200 students from TTAADC Polytechnic Institute, Tripura Polytechnic Institute, CIPET Agartala, and ICFAI University Tripura participated in the training program. The program was coordinated by Dr. Prasanta Kumar Sinha, Principal of the Faculty of Science and Technology of the ICFAl University in Tripura.

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## ICFAI introduces course on Hydraulic Systems

■ NEC Report

Agartala, Mar 19: The Mechanical Engineering Department of the ICFAI University Tripura has introduced an industry-relevant course on "Hydraulic Systems and Applications". It will be an inte-gral part of the academic curriculum. On March- 18, 2024, a group of industry professionals and well-known academicians attended an inauguration program to formally introduce the course. The course was inaugurated by Chief Guest Professor (Dr.) Madhusudan Chakraborty, former Professor and Deputy Director, IIT Kharagpur, and former founder Director of IIT

Bhubaneswar, and currently Emeritus Professor of ICFAL University Tripura, resource person Er. Ambarish Chatterjee, Principal Consultant of FCP Index and Connections, Pune, and Dr. Raja Chakraborty, Professor of Tripura Institute of Technology and Chairman of Tripura Board of Joint Entrance Examination, as Guest of Honor. Along with the dignitaries, Prof.(Dr.) A Ranganath, Registrar, and Dr. Priyangshu Rana Borthakur, Dean of the University, were also there on the dais. The dignitaries explained various aspects of learning hydraulic systems and applications with presentations and easy examples of

hydraulic applications in different sectors of industries, including production industries. It is a 30-hour course designed by industry experts. It will be taught by experts from the industry. Students will get hands-on training on "Hydraulic Systems and Applications." They will be able to do live projects and internships in the relevant discipline and will get opportunities for placement in the relevant discipline in the industry. The main objective of the course is to provide a holistic view of the usage of hydraulic systems in industrial components and applications aimed at high-performance motion and control technology in the industry.

NEC DF 20.3.24

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Registrar Tripura (Nest)
ICFAI University Tripura (Nest)
Kamaighat, Tripura (Nest)

# ইকফাই'এ হাইড়োলিক সিস্টেম এবং অ্যাপ্লিকেশনের উপর শিল্প- প্রাসঙ্গিক কোর্স চালু



কামালঘাট।।ইকফাই বিশ্ববিদ্যালয় ব্রিপুরার মেকানিকাল ইঞ্জিনিরারিং বিভাগ এর উদ্যোগে 'হাইড্রেলিক সিস্টেমন এবং অ্যাপ্লিকেশন' এর উপর একটি শিল্প-প্রসেপিক কোর্স চালু করা হয়েছে। একাডেমিক পাঠ্যক্রমের একটি অবিচ্ছেদ্য অংশ হিসাবে গত ১৮ই মার্চ শিল্পউদ্যোগের পেশাদার অভিজ্ঞ ব্যাক্তি এবং স্বনামধন্য শিক্ষবিদদের

উ পহিতিতে আনুষ্ঠানিকভাবে কোসটি চালু করা হয়। কোর্সের উদ্বোধনী অনুষ্ঠানে প্রধান অতিথি হিসাবে উপস্থিত ছিলেন আইআইটি খড়গপুর এর প্রাক্তন উপ-পরিচালক ও অধ্যাপক তথা আই আইটি ভূবনেশ্বের প্রাক্তন পরিচালক এবং বর্তমানে ইককাই বিশ্ববিদ্যালয়ের এমিরিটাস অধ্যাপক ড: মধ্যুদন চক্রবর্তী, বিশেষ অতিথি ও রিসোর্স

পার্সন হিসাবে উপস্থিত ছিলেন পুনেস্থিত এফসিপি ইনডের আন্ড কানেকশনস এর উপ-পরিচালক ইঞ্জিনীর অম্বরীশ চ্যাটার্জি, এবং সম্মানিত অতিথি হিসেবে ত্রিপুরা ইনস্টিটিউট অফ টেকনোল্জির অধ্যাপক এবং ত্রিপুরা বোর্ড অফ জয়েন্ট এক্ট্রান্স এক্সামিনেশনের চেরারম্যান ভ: রাজ্য চক্রবর্তী প্রমুণ। গণামান্য বাজিদের

পাশাপাশি মঞ্চে উপস্থিত ছিলেন ইকফাই বিশ্ববিদ্যালের রেজিস্ট্রার ড: এ রঙ্গনাথ এবং বিশ্ববিদ্যালারের ডিন ড: প্রিয়াংশু রানা বভূঠাকুর। অতিথিবর্গ তাদের প্রদন্ত ভাষণে হাইছোলিক সিস্টেম এবং আপ্রিকেশন শেখার বিভিন্ন দিক উপস্থাপনা করেন এবং শিল্প সহ শিদ্ধের বিভিন্ন সেক্টরে হাইড্রোলিক অ্যাপ্লিকেশনের সহজ ব্যবহার উদাহরণ সহযোগে ব্যাখ্যা করেন। এটি শিক্ষ বিশেষজ্ঞাদের হারা ডিজাইন

করা একটি ত্রিশ ঘন্টার কোর্স যা শিল্প বিশেষজ্ঞরা শেখাবেন। যে সকল শিক্ষাধীরা 'হাইড্রোলিক সিস্টেম এবং অ্যাপ্লিকেশন' এর উপর প্রশিক্ষণ পাবে, তারা প্রাসঙ্গিক ডিসিপ্লিনে লাইভ প্রজেক্ট এবং ইন্টার্নশিপ করতে পারবে এবং উক্ত বিষয়ে ইন্ডাস্টিতে নিয়োগের অগ্রাধিকরে পাবে। কোর্সের মল উদ্দেশ্য হল শিল্প গুলিতে ব্যবহাত বিভিন্ন হাইড্রোলিক সিস্টেমের ব্যবহার, কর্মক্ষমতা, গতি ও নিয়ন্ত্রণ প্রযুক্তির সম্পর্কে একটি সামগ্রিক দ্বিভঙ্গি প্রদান করা। শিক্ষার্থীরা উত্ত বিষয়ে জ্ঞান অর্জন করে বিভিন্ন মার্কেট সেগমেন্ট ঘেমন নির্মাণ

এবং অবকাঠামো খাত, ভারী প্রকৌশল, পাওয়ার হাইড্রোলিক, পাওয়ার জেনারেশন, মাইনিং, রেলওয়ে, প্রতিরক্ষা এবং অটোমেশনে ব্যবহৃত বিভিন্ন আপ্লিকেশনের সাথে সম্পর্কিত অভিজ্ঞতা নিতে পার্বে য গতিশীল শিল্প বিভাগে কর্মসংস্থান এর সুযোগ বাড়াতেও সাহায্য করবে। অংশগ্রহণকারীরা পৃথিগত জানের সাথে প্রশিক্ষণ এবং হাতে-কলমে সফলভাবে এই কোর্স সম্পদ্ন করার পরে, পেশাদার কাজের জন্য প্রয়োজনীয় দক্ষতার সাথে সজ্জিত হবে এবং শিল্পের নিয়োগের জন্য প্রস্তুত হয়ে যাবে। প্রশিক্ষণ কার্যক্রম সঞ্চলভাবে সমাপ্তির পর একটি সাটিফিকেট প্রদান করা হবে। টিটিএএডিসি পলিটেকনিক ইনস্টিটিউট, গ্রিপুরা পলিটেকনিক ইনস্টিটিউট, সিপেট আগরতলা এবং ইকফাই ত্রিপুরার প্রায় ২০০ জন শিক্ষার্থী ওই প্রশিক্ষণকর্মসূচিতে অংশগ্রহণ করে। অনুষ্ঠানটির সার্বিক তত্ত্বধানে ছিলেন ইকফাই বিশ্ববিদ্যালয়ের বিজ্ঞান ও প্রযুক্তি বিভাগের অধ্যক্ষ ড: প্রশান্ত কুমার সিনহা।

Ajuer Fariad Dt 20.3.24

17x20cm

Registrat Tripura (Nesh Kamalghat, Tripura (Nesh

fluicannecto:



Date: 12.07.2024

# TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. Abhiji Deb student of B. Tech (TY. Regular) studying in The ICFAI University of Mechanical Engineering Department, Kamalghat, Tripura (W) has done his internship from 3<sup>rd</sup> June 2024 to 12<sup>th</sup> July 2024.

During the period of internship, we observe he was sincere, honest, punctual, and disciplined in the work, he was willing to learn and participated in the activities.

We wish him success and in pursuit for a bright carrier.

Fluiconnecto India Pyt. Ltd.

**Authorized Signature** 





Date: 12.07.2024

# TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Mr. Amartya Shekhar Chowdhruy** student of B. Tech (TY. Regular) studying in The ICFAI University of Mechanical Engineering Department, Kamalghat, Tripura (W) has done his internship from 3<sup>rd</sup> June 2024 to 12<sup>th</sup> July 2024.

During the period of internship, we observe he was sincere, honest, punctual, and disciplined in the work, he was willing to learn and participated in the activities.

We wish him success and in pursuit for a bright carrier.

Am Comment

Fluiconnecto India Pvt. Ltd.

Authorized Signature

Registrar Tribura (tvæst.)
Remaighair Tribura (tvæst.)



# नॉर्थ ईस्टर्न इलेक्ट्रिक पॉवर कॉर्पोरेशन लिमिटेड

NORTH EASTERN ELECTRIC POWER CORPORATION LIMITED (आरत सरकार का उद्यम) / (A Govi. of India Enterprise)

AGARTALA GAS BASED POWER STATION/ अगरतला गैस वेस पावर स्टेशन मानव संसाधन स्कंध / HUMAN RESOURCE WING

रामचन्द्र नगर, त्रिप्रा (प)/ RAMCHANDRA NAGAR, TRIPURA (W) -799008

No.NEEPCO/AgGBPS/HR/TRG-3/2024-25/

1137

Date : 26 .07.2024

# TO WHOM IT MAY CONCERN

This is to certify that Shri Agradeep Dasgupta a student of B. Tech., 4th Semester, Mechanical Engineering Branch of "The ICFAI University" Kamalghat, Tripura(W), Tripura has successfully completed the Project Work at Agartala Gas Based Power Station, North Eastern Electric Power Corporation Ltd., Ramchandranagar, Tripura (West). Tripura, PIN-799008 from 11.06.2024 to 10.07.2024.

During the period of training in the Plant / Organisation, his conduct was found good.

Shri Agradeep Dasgupta took keen interest in his study and was found to be most sincere, hardworking and have potential to be a good Executive.

We wish every success in his career.

[ N. K. Meitei ]

Dy. General Manager(HR)

AgGBPS, NEEPCO Ltd.

R.C.Nagar, Agartala, Tripura(W)



ICFAI University Tripura (Niesen Kamalghat, Tripura (Niesen



# नॉर्थ ईस्टर्न इलेक्ट्रिक पॉवर कॉर्पोरेशन लिमिटेड

NORTH EASTERN ELECTRIC POWER CORPORATION LIMITED (भारत सरकार का उदयम) / (A Govt. of India Enterprise)

AGARTALA GAS BASED POWER STATION/ अगरतला गैस बेस पावर स्टेशन

मानव संसाधन स्कंध / HUMAN RESOURCE WING

रामचन्द्र नगर, त्रिप्रा (प)/ RAMCHANDRA NAGAR, TRIPURA (W) -799008

No.NEEPCO/AgGBPS/HR/TRG-3/2024-25/

1120

Date: 26 .07.2024

# TO WHOM IT MAY CONCERN

This is to certify that Shri Surajit Debbarma a student of B. Tech., 4th Semester, Mechanical Engineering Branch of "The ICFAI University" Kamalghat, Tripura (W), Tripura has successfully completed the Project Work at Agartala Gas Based Power Station. North Eastern Electric Power Corporation Ltd., Ramchandranagar, Tripura (West). Tripura. PIN- 799008 from 11.06.2024 to 10.07.2024.

During the period of training in the Plant / Organisation, his conduct was found good. Shri Surajit Debbarma took keen interest in his study and was found to be most sincere, hardworking and have potential to be a good Executive.

We wish every success in his career.

IN. K. Meitei 1

Dy. General Manager(HR) AgGBPS, NEEPCO Ltd.

R.C.Nagar, Agartala, Tripura(W)



CFALUNIVE Tripura (West)



# नॉर्थ ईस्टर्न इलेक्ट्रिक पॉवर कॉर्पीरेशन लिमिटेड

NORTH EASTERN ELECTRIC POWER CORPORATION LIMITED (भारत सरकार का उदयम) / (A Govt. of India Enterprise)

AGARTALA GAS BASED POWER STATION/ अगरतला गैस बेस पावर स्टेशन

मानव संसाधन स्कंध / HUMAN RESOURCE WING

रामचन्द्र नगर, त्रिपुरा (प)/ RAMCHANDRA NAGAR, TRIPURA (W) -799008

No.NEEPCO/AgGBPS/HR/TRG-3/2024-25/

1119

Date: 26 .07.2024

# TO WHOM IT MAY CONCERN

This is to certify that **Shri Amit Tripura** a student of B. Tech., 4<sup>th</sup> Semester, Mechanical Engineering Branch of "The ICFAI University" Kamalghat, Tripura(W), Tripura has successfully completed the Project Work at Agartala Gas Based Power Station, North Eastern Electric Power Corporation Ltd., Ramchandranagar, Tripura (West), Tripura, PIN-799008 from **11.06.2024** to **10.07.2024**.

During the period of training in the Plant / Organisation, his conduct was found good.

Shri Amit Tripura took keen interest in his study and was found to be most sincere, hardworking and have potential to be a good Executive.

We wish every success in his career.

[ N. K. Meitei ]

Dy. General Manager(HR)
AgGBPS, NEEPCO Ltd.
R.C.Nagar, Agartala, Tripura(W)



ICFAI University Tripura (West)
Kamalghat, Tripura (West)





16.07.2024

### **INTERNSHIP LETTER**

## TO WHOM IT MAY CONCERN

This is to certify that Mr. Gunjan Karmakar, pursuing B.Tech in Mechanical Engineering from The Institute of Chartered Financial Analysts of India (ICFAI) has undergone Industrial Internship Training from 10.06.2024 to 24.07.2024 in our Organization.

He has successfully completed a project on 'Production of different types of Railway Wagons'.

We wish him success in his future endeavors.

For Texmaco Rail & Engineering Ltd.

Koustav R Kundu

Chief IR & Admin Officer

Registrar inpura lives l' ICFAI University Tripura lives l' Kamaighat, Tripura lives l'





16.07.2024

# **INTERNSHIP LETTER**

# TO WHOM IT MAY CONCERN

This is to certify that Mr. Saikat Acharjee, pursuing B.Tech in Mechanical Engineering from The Institute of Chartered Financial Analysts of India (ICFAI) has undergone Industrial Internship Training from 10.06.2024 to 24.07.2024 in our Organization.

He has successfully completed a project on 'Production of different types of Railway Wagons':

We wish him success in his future endeavors.

For Texmaco Rail & Engineering Ltd.

Koustav R Kundu

Chief IR & Admin Officer

Registrar, Tripura (Nessi)
Kamalghat, Tripura (Nessi)





16.07.2024

# **INTERNSHIP LETTER**

# TO WHOM IT MAY CONCERN

This is to certify that **Mr. Shankha Shubhra Debnath**, pursuing B.Tech in Mechanical Engineering from The Institute of Chartered Financial Analysts of India (ICFAI) has undergone Industrial Internship Training from **10.06.2024** to **24.07.2024** in our Organization.

He has successfully completed a project on 'Production of different types of Railway Wagons'.

We wish him success in his future endeavors.

For Texmaco Rail & Engineering Ltd.

Koustav R Kundu

Chief IR & Admin Officer

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# G Cube Sticks Pvt. Ltd.

Sile Plot No. 52, Bamboo Park, R. K. Nagar Industrial Area, Agartala, Tripura 799008 Regd. Office: 105, G Floor, 4th Street North, Hudco colony, Tatabad, Coimbatore-641012 Phone: +91-7627997301, Email: hr-admin@gcube.co.in; Web: www.gcube.co.in

This is to certify that Mr Shiva Rupini has successfully completed summer internship with G Cube Sticks Pvt. Ltd, Plot No. 52, Bamboo Park, R. K. Nagar Industrial Area, Agartala, Tripura 799008, Phone: +91-7627997301; Email: hr-admin@gcube.co.in; Web: www.gcube.co.in in Green Technology and Production Process of Bamboo Production from 11 June 2024 to 16 July 2024.

During the internship, he demonstrated exceptional dedication and enthusiasm in his role, contributing significantly to production and quality records. His ability to keep record of production and tracking quality reports has been commendable.

#### Supervisor's Comments:

S Anton Tebi Roch, Plant Head notes that the intern exhibited a strong work ethic and adaptability.

This internship certificate is issued as a formal recognition of Mr Shiva Rupini's valuable contributions to G Cube Sticks Pvt Ltd. We wish him success in all his future endeavours.

Date of Issuance: 20 July 2024

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# Two isostructural complexes of Ni(II) and Zn(II) with violurate and pyridine: a detailed structural, theoretical, magnetic, and NMR investigation†

Subhadip Roy, (1) ab Susital Mal, c Rupak Banik, a Subrata Das, (1) \*c L'ubor Dlháň, d Ján Titiš, (1) \*e Roman Boča, (1) e Alexander M. Kirillov, (1) \*f Alexander S. Novikov, (1) gh Paul Hazendonk, a Ray J. Butcher, (1) and Antonio Bauza (1) k and Antonio Frontera (1) \*k

Two new metal(III) complexes  $[M(dmv)_2(py)_2] \cdot 3H_2O$   $\{M = Ni \ (1), Zn \ (2)\}$  were self-assembled from a metal(III) chloride salt, N,N'-dimethylvioluric acid (Hdmv), and pyridine (py). They were isolated as stable crystalline solids and characterized, including by single crystal X-ray diffraction. Structures 1 and 2 are composed of discrete  $[M(dmv)_2(py)_2]$  blocks in which the six-coordinate metal(III) atoms show a slightly distorted  $\{MN_4O_2\}$  octahedral geometry. The adjacent  $[M(dmv)_2(py)_2]$  units are hydrogen bonded with an involvement of disordered water clusters into 1D H-bonded chains. DFT calculations were used to analyse the unconventional anti-parallel  $C=O\cdots C=O$  interaction observed between the monomeric units in 1 and 2. Complex 1 also refers to an elongated tetragonal bipyramid for which a positive zero-field splitting is confirmed by magnetic studies. The complex matches the magnetostructural D-correlation for hexacoordinate N(III) complexes with moderate structural and magnetic anisotropy with  $D_{str} = +7.45$  pm, and  $D_{mag} = +5.11$  cm<sup>-1</sup>. Solution state NMR spectroscopy reveals a slow isomerization process related to the bidentate-N,O and bidentate-N,O coordination of dimethylviolurate in 2, with the barrier ranging from 76.4 to 77.9 kJ mol<sup>-1</sup>. The <sup>1</sup>H NMR spectra confirm the presence of three water molecules which exhibit significant chemical shift dependence on temperature indicating strong binding to the complex in solution phase.

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#### Introduction

Barbituric acid and its derivatives are widely acknowledged as excellent building blocks for the development of coordination and supramolecular compounds, encompassing a diverse range of distinct mono- and polynuclear metal complexes, organic-inorganic hybrids, coordination polymers, metalorganic frameworks, covalent organic frameworks, molecular motors, and heterocyclic and carbocyclic compounds.  $^1$  Among the plethora of barbituric acid derivatives, violuric acid ( $H_3$ vi)

and N,N'-dimethylvioluric acid (Hdmv) (Scheme 1) represent interesting examples containing a C—N-OH substituent at the 5-position on the barbiturate ring. This substituent endows violurates with additional coordination sites compared to barbituric acid and furthermore provides a large variety of binding behaviour, as depicted in Scheme 2. These molecules can also be considered as excellent building blocks for supramolecular chemistry due to their abundance of hydrogen bond donor and acceptor sites as well as the presence of a pyrimidine ring moiety that facilitates  $\pi$ -stacking interactions.

<sup>i</sup> Department of Chemistry and Biochemistry, University of Lethbridge, 4401 University Dr. Lethbridge Alberta, T1K 3M4, Canada. E-mail: paul.hazendonk@uleth.ca

J Department of Chemistry, Howard University, Washington, DC 20059, USA

k Department de Quimica, Universitat de les Illes Paleers, Orto, de Valldon

k Departament de Quimica, Universitat de les Illes Balears, Crta. de Valldemossa km 7.5, 07122 Palma de Mallorca, Baleares, Spain. E-mail: toni.frontera@uib.es † Electronic supplementary information (ESI) available: Fig. S1 and S2 show IR spectra of 1 and 2, Fig. S3 represents g- and D-tensor orientation (magnetic axes) in 1, Fig. S4 features magnetostructural D-correlation, Table S1 lists crystallographic data and structure parameters, Tables S2-S5 contain bond lengths and angles for 1 and 2, Tables S6 and S7 present magnetic parameters of complex 1. CCDC 1517712 (1) and 1517715 (2). For ESI and crystallographic data in CIF or other electronic format see DOI: https://doi.org/10.1039/d3ce00871a



<sup>&</sup>lt;sup>a</sup> Department of Chemistry, National Institute of Technology (NIT) Agartala, 799046, Tripura, India

<sup>&</sup>lt;sup>b</sup> Department of Chemistry, The ICFAI University Tripura, 799210, Tripura, India <sup>c</sup> Department of Chemistry, National Institute of Technology (NIT) Patna, Ashok Rajpath, Patna-800005, Bihar, India. E-mail: subrataorgchem@gmail.com, subratad@nitp.ac.in; Tel: +91 7070093212

<sup>&</sup>lt;sup>d</sup> Institute of Inorganic Chemistry, FCHPT, Slovak University of Technology, 81237 Bratislava, Slovakia

<sup>&</sup>lt;sup>e</sup> Department of Chemistry, FPV, University of SS Cyril and Methodius, 91701 Trnava, Slovakia. E-mail: jan.titis@ucm.sk

<sup>&</sup>lt;sup>f</sup> Centro de Química Estrutural, Institute of Molecular Sciences, Departamento de Engenharia Química, Instituto Superior Técnico, Universidade de Lisboa, Av. Rovisco Pais, 1049-001 Lisbon, Portugal. E-mail: kirillov@tecnico.ulisboa.pt <sup>g</sup> Saint Petersburg State University, Universitetskaya Nab., 7/9, Saint Petersburg, 199034, Russian Federation

<sup>&</sup>lt;sup>h</sup> Peoples' Friendship University of Russia (RUDN University), Miklukho-Maklaya Street, 6, Moscow, 117198, Russian Federation

confirm strong water binding to the complex at a stoichiometric ratio 3 to 1.

Apart from broadening a still limited family of N,N'dimethylviolurate metal complexes, compounds also contribute to an area of research devoted to the theoretical analysis of structural traits supramolecular patterns, which can importance in the fields of crystal engineering and coordination chemistry.

#### Author contributions

Subhadip Roy: methodology, investigation, data curation, formal analysis. Susital Mal: data curation, formal analysis. Rupak Banik: data curation, formal analysis. Subrata Das: supervision, conceptualization, writing - original draft & editing. Ľubor Dlháň: investigation, data curation. Ján Titiš: software, investigation, writing - original draft. Roman Boča: investigation, data curation. Alexander M. Kirillov: investigation, writing - original draft. Alexander S. Novikov: software, investigation. Paul Hazendonk: conceptualization, investigation, writing - original draft. Ray J. Butcher: investigation. Antonio Bauza: investigation. Antonio Frontera: software, investigation, writing - original draft.

#### Conflicts of interest

There are no conflicts to declare.

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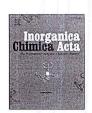
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# Azo-benzoic acid derivatives directed dinuclear and tetranuclear association of trimethyltin(IV) complex components and their biological activities

Pratima Debnath <sup>a</sup>, Paresh Debnath <sup>a,b</sup>, Subhadip Roy <sup>c</sup>, Maisnam Babita Devi <sup>d</sup>, Mutum Mona Devi <sup>d</sup>, Kananbala Sarangthem <sup>d</sup>, S. Sureshkumar Singh <sup>d</sup>, Manojit Roy <sup>a,\*</sup>, Alexander S. Novikov <sup>e,f,\*</sup>, Tarun Kumar Misra <sup>a,\*</sup>

- <sup>a</sup> Department of Chemistry, National Institute of Technology Agartala, Jirania, Tripura (west) 799046, India
- <sup>b</sup> Department of Chemistry, Bir Bikram Memorial College, Agartala, Tripura (west) 799004, India
- <sup>c</sup> Department of Chemistry, The ICFAI University Tripura, Kamalghat, Mohanpur, Agartala 799210, Tripura, India
- d Department of Botany, School of Life Sciences, Manipur University, Canchipur, Imphal 795003, Manipur, India
- <sup>c</sup> Institute of Chemistry, Saint Petersburg State University, Universitetskaya Nab., 7/9, 199034 Saint Petersburg, Russia
- <sup>f</sup> Research Institute of Chemistry, Peoples' Friendship University of Russia (RUDN University), Miklukho-Maklaya Street, 6, 117198 Moscow, Russia

#### ARTICLEINFO

# Keywords: Tri-organotin(IV) complexes $\mu$ -OH bridge Cyclic dinuclear structure Antidiabetic activities Antioxidant activities

#### ABSTRACT

Two new trimethyltin(IV) complexes including dinuclear-[(H2O)Me<sub>3</sub>Sn-µ-OH-SnMe<sub>3</sub>(HL<sup>1</sup>)] (1) and tetranuclear-[(Me<sub>3</sub>Sn)<sub>2</sub>(HOMe)H<sub>2</sub>L<sup>2</sup>]<sub>2</sub> (2) were synthesized by the reaction of 2-[2-{8-oxoquinolin-5(8H)-ylidene}hydrazinyl]  $benzoic\ acid\ (H_2L^1)\ and\ 2-[\{4-hydroxy-3-(4-hydroxy-3-carboxyphenyliminomethyl)phenylazo\}] benzoic\ acid\ (H_2L^1)\ and\ (H_2L^1)\ and\ (H_2L^1)\ acid\ (H_2L^1)\ acid\$ (H<sub>4</sub>L<sup>2</sup>), respectively with trimethyltin(IV) chloride. The complexes were characterized using sophisticated spectroscopic tools and single crystal X-ray crystallographic analysis. The structure of the complex 1 is dinuclear and is made up of two Me<sub>3</sub>Sn(IV) centres connected by a hydroxyl ( $\mu$ -OH) group. The carboxylate group from the H<sub>2</sub>L<sup>1</sup> ligand and a water molecule are each responsible for coordinating the terminal edges of the two distinct tin centres. In the structure of complex 2, which is tetranuclear in nature, a cyclic loop containing two symmetryrelated Me<sub>3</sub>Sn(IV) units is confined by the alternate carboxylate-O and phenoxide-O atoms from the two  $H_4L^2$ ligands. The remaining carboxylate groups from  $H_4L^2$  ligands are attached to the other two terminal symmetryrelated Me<sub>3</sub>Sn(IV) units, which are further bound by the methanol-O atoms, thereby preventing extended molecular structure. According to Hirshfeld surface and DFT topological analysis, the weak noncovalent interactions involving H-bonding are substantially responsible for the molecular packing. According to the 119Sn-NMR spectra, the hydroxo-bridge bonds of 1 in the solid state break to form two dissimilar tetrahedral environment about two Sn(IV) units in solution. Whereas, in complex 2, the phenolate-O-Sn bonds in the solid state break to form a trigonal bipyramidal and a tetrahedral geometries around Sn(IV) linked by the  $H_4L^2$  ligand in the solution, as if the ligand  $H_4L^2$  holds  $Me_3Sn(IV)$  and  $Me_3Sn(IV)$ (OMe) units by its two carboxylate hands. The study of antidiabetic activities of the synthesized compounds against  $\alpha$ -glucosidase and  $\alpha$ -amylase reveal that the ligand  $H_4L^2$  and complex 1 have efficient  $\alpha$ -amylase inhibitory characteristics. In addition, the results of antioxidant activities indicate that complex 2 possesses promising activity and thus could be employed as an excellent antioxidant.

#### 1. Introduction

Organotin (IV) compounds are typically produced by the reaction of tin with a hydrocarbon substituent, and the study of organotin(IV) compounds encompasses a substantial portion of organometallic chemistry. The field of organotin(IV) compounds is progressively expanding and gaining interest due to their interactions with various biomolecules [1]. To investigate the biological efficacy of organotin(IV) compounds, it is necessary to determine the coordination environment of organotin(IV) species with various biomolecules [2]. Organotin(IV)

\* Corresponding authors.

E-mail addresses: mroychem@gmail.com (M. Roy), a.s.novikov@spbu.ru (A.S. Novikov), tkmisra70@yahoo.com (T.K. Misra).

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complex 1 have significant  $\alpha$ -amylase inhibition properties, while complex 2 shows promising antioxidant activity and thus could be used as excellent antioxidant.

#### CRediT authorship contribution statement

Pratima Debnath: Methodology, Investigation, Writing - original draft. Paresh Debnath: Methodology, Data curation, Investigation, Formal analysis. Subhadip Roy: Software, Investigation, Formal analysis. Maisnam Babita Devi: Formal analysis. Mutum Mona Devi: Formal analysis. Kananbala Sarangthem: Formal analysis. S. Sureshkumar Singh: Formal analysis. Manojit Roy: Supervision, Conceptualization, Writing - review & editing. Alexander S. Novikov: Investigation, Formal analysis, Writing - review & editing. Tarun Kumar Misra: Supervision, Conceptualization, Writing - review & editing.

#### **Declaration of Competing Interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

#### Data availability

Data will be made available on request.

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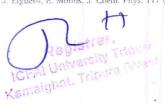
#### Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi. org/10.1016/j.ica.2023.121805.

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# Electron transfer catalysis mediated by 3d complexes of redox non-innocent ligands possessing an azo function: a perspective†

Alok Apan Swatiputra, (1) ‡ Debaarjun Mukherjee, (10) ‡ Soumitra Dinda, (10) a Subhadip Roy, (10) b Kausikisankar Pramanik (10) \*\* and Sanjib Ganguly (10) \*\*

It was first reported almost two decades ago that ligands with azo functions are capable of accepting electron(s) upon coordination to produce azo-anion radical complexes, thereby exhibiting redox noninnocence. Over the past two decades, there have been numerous reports of such complexes along with their structures and diverse characteristics. The ability of a coordinated azo function to accept one or more electron(s), thereby acting as an electron reservoir, is currently employed to carry out electron transfer catalysis since they can undergo redox transformation at mild potentials due to the presence of energetically accessible energy levels. The cooperative involvement of redox non-innocent liqand(s) containing an azo group and the coordinated metal centre can adjust and modulate the Lewis acidity of the latter through selective ligand-centred redox events, thereby manipulating the capacity of the metal centre to bind to the substrate. We have summarized the list of first row transition metal complexes of iron, cobalt, nickel, copper and zinc with redox non-innocent ligands incorporating an azo function that have been exploited as electron transfer catalysts to effectuate sustainable synthesis of a wide variety of useful chemicals. These include ketazines, pyrimidines, benzothiazole, benzoxazoles, N-acyl hydrazones, quinazoline-4(3)H-ones, C-3 alkylated indoles, N-alkylated anilines and N-alkylated heteroamines. The reaction pathways, as demonstrated by catalytic loops, reveal that the azo function of a coordinated ligand can act as an electron sink in the initial steps to bring about alcohol oxidation and thereafter, they serve as an electron pool to produce the final products either via HAT or PCET processes.

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#### 1. Introduction

Over the years, scientists have endeavoured to develop highly efficient and selective new catalysts to synthesise essential chemicals and commodities in order to meet the needs of an ever-expanding global population and this is also inevitable from a sustainability and energy conservation standpoint. In this regard, several transition-metal complexes are demonstrated to function as homogeneous catalysts for carrying out several transformations quite efficiently under ambient conditions of temperature and pressure. Several review articles

have been published to elucidate the role of such complexes in catalysis as well as to understand the probable mechanism of their catalytic action. 1-10 In the majority of these cases, electronic properties and/or steric encumbrance of the ligand framework have been exploited to regulate catalytic performances and it has been observed that metal centres are directly involved in the catalytic process while the ligands are considered to be spectators in the truest sense. In the past two decades, the chemistry of transition metal complexes with redox-active ligands has made enthralling progress. The idea of redox non-innocence of a ligand was introduced by Jørgensen in 1966 for those types of ligands that may have ambiguity in their oxidation levels.11 Such ligands possess a low-lying LUMO or a higher energy HOMO that may facilitate the delocalization of the electron density of their complexes, thereby promoting redox reactions within the potential range in which they can be active. 12-22 In turn, this may endow them with the ability to achieve unusual reactivity via harmonizing the loss or gain of both protons and electrons (PCET), thereby allowing the ligand skeleton to adopt diverse canonical forms and subsequently providing novel properties to



<sup>&</sup>lt;sup>a</sup>Department of Chemistry, St. Xavier's College (Autonomous), Kolkata – 700016, India. E-mail: icsgxav@gmail.com, icsg@sxccal.edu; Tel: +91 33 2255 1266

Department of Chemistry, The ICFAI University Tripura, Tripura 799210, India

<sup>&</sup>lt;sup>c</sup>Department of Chemistry, Inorganic Chemistry Section, Jadavpur University, Kolkata – 700032, India

<sup>†</sup> Electronic supplementary information (ESI) available. See DOI: https://doi.org/10.1039/d3dt02567e

<sup>‡</sup>These authors contributed equally to this work.



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Dr. Amitava Das, (FNA. FASc, FNASc)

DST-J C Bose National Fellow Professor, Department of Chemical Sciences

June 5, 2024

#### Sub: Permission to work in my Research Lab at IISER Kolkata

As per the discussion and the subsequent mail from Dr. Tufan Singha Mahapatra, Assistant Professor at ICFAI University Tripura, I hereby confirm that Mr. Bilash Chandra Roy, a research scholar in his research group at ICFAI University will work in my research group at IISER Kolkata for two weeks. During his stay at IISER Kolkata, my research group members/scholars would help him in studies on fluorescence-based sensing applications using some of the newly synthesized lanthanide-terpyridine-based complexes. My research group associates would also help him with some of the electronic microscopic (FESEM) studies too to examine the morphologies of the nano aggregates of the above-referred coordination nanosheets.

Amitava Das

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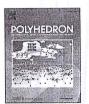
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# Structures and magnetic properties of a trinuclear angular [Ni<sub>3</sub>] and a heptanuclear wheel-like [Ni<sub>7</sub>] complexes with a Schiff base ligand

Tufan Singha Mahapatra <sup>a,b,\*</sup>, Bilash Chandra Roy <sup>a</sup>, Biswarup Dutta <sup>b</sup>, Jeff Lengyel <sup>c</sup>, Michael Shatruk <sup>c</sup>, Debashis Ray <sup>b,\*</sup>

- <sup>a</sup> Department of Chemistry, Faculty of Science and Technology, ICFAI University Tripura, Agartala 799210, Tripura (W), India
- <sup>b</sup> Department of Chemistry, Indian Institute of Technology, Kharagpur 721 302, India
- <sup>c</sup> Department of Chemistry & Biochemistry, Florida State University, Tallahassee, FL 32306, United States

#### ARTICLE INFO

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#### ABSTRACT

The presence of large magnetic anisotropy with nickel(II) ions facilitates the single-molecule magnet (SMM) behavior in multimetallic nickel(II) complexes. Herein syntheses under ambient conditions, characterizations, crystal structures, and experimental magnetic analyses of an angular  $[Ni_3^{ll}L_4]$  and a wheel-like  $[Ni_1^{ll}L_6]$  complexes of general formula  $[Ni_3L_2(\mu-L)_2(\mu-OH_2)_2(CF_3CO_2)_2]$  (1) and  $[Ni_7(\mu-L)_6(\mu-OMe)_6]Cl_2\cdot 6H_2O$  (2) (HL = 2-{(3-ethoxypropylimino)methyl}-6-methoxyphenol) have been reported. The angular core of trimetallic neutral complex 1 is assembled using four L $^-$ , two bridging water molecules, and two bound trifluoroacetate anions. In contrast, the heptanuclear complex 2 features a planar wheel-like arrangement with a central Ni $^{ll}$  enclosed by a {Ni}\_{ll}^{ll} hexagon bound to six MeO and six L $^-$ . The isolation of these two aggregates of varying nuclearity and metal ion: ligand anion ratio indicated the importance of reaction conditions and crystallization to follow the bottom-up assembly processes. Experimental magnetic studies showed antiferromagnetic interactions between the central and terminal Ni $^{ll}$  ions in complex 1 and competing ferro- and antiferromagnetic interactions in the wheel-like complex 2.

#### 1. Introduction

The synthetic methods for creating multinuclear nickel(II) complexes have experienced enormous growth in recent years from their structural characterizations, proposed mode of ligand-induced aggregation, applications in solid state and solution medium, magnetic and catalytic properties [1-11,58-60] and for getting information for nickel (II) bearing biomolecules [12-24,31]. The stepwise formation of coordination aggregates under the control binding of metal ions with ligand anions is a significant subject to understanding the mode of assembly processes, the role of the reaction conditions, the effect of solvents and readiness in crystal packing. N, O donor-based Schiff bases are useful in obtaining multinuclear nickel(II) molecular spin clusters [25-30]. In some cases, single-molecule magnet (SMM) behavior was identified in the laboratory-synthesized compounds having ground high-spin states and uniaxial magnetic anisotropy [3,4,32-34]. Despite the expansion and advances in Ni(II) multinuclear complexes domain, proper apprehension of the in situ generated intermediates between the starting

reactants and finally produced clusters remains challenging. Orthovanillin-based Schiff base ligands are well known to afford a base-dependent generation of ligand anions (L $^-$ ), which can result in several {ML} and {M $_2$ L} species upon reacting with metal ions (M) (Fig. 1) [35,45]. These fragments can further aggregate to generate stable clusters of multinuclear complexes of varying geometries in the solution pool of various ancillary ligands such as water (H $_2$ O), hydroxide (HO $^-$ ), methoxide (MeO $^-$ ) and carboxylate (RCO $_2$ ) [36 $^-$ 46].

Herein, we report the synthetic procedures, crystal structures, and magnetic properties of trinuclear  $[Ni_3L_2(\mu-L)_2(\mu-OH_2)_2(CF_3CO_2)_2]$  (1) and heptanuclear  $[Ni_7(\mu-L)_6(\mu-OMe)_6]Cl_2\cdot 6H_2O$  (2) complexes on aqua and methoxido bridges, respectively. The chosen nickel(II) salts and bases were crucial for allowing water bridges as supports in 1 and assembling six methoxido groups around one nickel(II) ion in 2. In both cases, the ligand anions (L $^-$ ) function as capping groups depending upon the solvent and metal ion-based templates. During the two aggregation progressions, the MeO— arms on L $^-$  were utilized as and when required to provide {Ni<sub>2</sub>L} connections. The temperature dependence of  $\chi T$  ( $\chi=$ 

\* Corresponding authors at: Department of Chemistry, Faculty of Science and Technology, ICFAI University Tripura, Agartala 799210, Tripura (W), India (T. Singha Mahapatra); Department of Chemistry, Indian Institute of Technology, Kharagpur 721 302, India (D. Ray).

E-mail addresses: tufansmp@gmail.com (T. Singha Mahapatra), dray@chem.iitkgp.ac.in (D. Ray).

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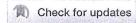
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## Investigations on a mononuclear Cu(II) Schiff base complex: theoretical calculations, catechol oxidase activity, and protein binding interaction analysis†

Bilash Chandra Roy, @ Biswarup Dutta, Dipmalya Basak, \* Surajit Debnath, \* C Debashis Ray\*<sup>b</sup> and Tufan Singha Mahapatra \*\*\*

A new mononuclear copper(II) complex [Cu(HL)2](1), has been synthesized from a Schiff base ligand (H2L) and characterized by FTIR spectroscopy, UV-vis spectroscopy, single crystal X-ray diffraction, and powder X-ray diffraction. Single crystal X-ray diffraction analysis established the perfect square planar geometry around the Cu(ii) ion ( $\tau_4 \approx 0$ ), obtained by the coordination of the two N and two O atoms from the two deprotonated  $H_2L$  ligands. However, the electronic spectra of complex  $\bf 1$  displayed a d-d transition band at 959 nm ( $\varepsilon = 73.5 \text{ L mol}^{-1} \text{ cm}^{-1}$ ) in MeCN ( $10^{-3} \text{ M}$ ) suggesting a moderate distortion towards tetrahedral geometry in solution. The DFT-optimized structure of complex 1 in MeCN solvent further supported the distortion of square-planar complex 1 with  $\tau_4 \approx 0.286$ . Complete active space self-consistent field (CASSCF) calculations in MeCN also suggested a peak at 991 nm ( $d_{xy} \rightarrow d_{x^2-y^2}$ ), which is a very good match with the experimental result. The existence of intermolecular hydrogen bonding interactions (O-H···O, 2.012(13) Å) was supported by Hirshfeld surface analysis. Complex 1 was screened for its potential application as a catalyst for the catalytic oxidation of 3,5-di-tert-butyl-catechol (3,5-DTBCH<sub>2</sub>) and the turnover number ( $k_{cat}$ ) was found to be 19.87  $h^{-1}$  in MeCN. We further explored the protein binding interaction ability of complex 1 with bovine serum albumin (BSA) protein using a UV-Vis absorption study and the binding constant ( $K_{\rm b}$ ) was determined to be 7.15 imes  $10^3$   $M^{-1}$ . Additionally, simulation analysis was performed on BSA and human serum albumin (HSA) proteins with complex 1 to gain a more detailed perception of binding interactions at the atomistic level. The simulation study indicated that complex 1 interacted more strongly with BSA with a total of 7 polar interactions than with HSA, which has 6 polar interactions. The most stable interaction with BSA had an energy minimum of  $-8.6 \text{ kcal mole}^{-1}$  with "0" RMSD.

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#### Introduction

received noteworthy interest from the scientific fraternity in the last few decades owing to their fascinating structural topology, magnetism, and catalytic and biological activity. 1-8

Transition metal complexes with Schiff base ligands have

<sup>a</sup> Department of Chemistry, Faculty of Science and Technology, ICFAI University Tripura, Agartala-799210, Tripura (W), India. E-mail: tufansmp@gmail.com, tsmahapatra@iutripura.edu.in

Schiff bases have gained great importance due to their wide range of applications, such as anticancer, 9,10 anti-inflammatory, 11,12 antimicrobial, 1,13,14 antioxidant, 15,16 photophysical, 17,18 optical, 19,20 catalytic<sup>21,22</sup> and electrochemical properties.<sup>23,24</sup> Among all the inorganic transition metal ions copper(11)-containing compounds with an advanced mode of design have been explored for various catalytic activities, protein-complex binding studies, DNA binding and cleavage activities, 25-27 and antimicrobial activities. 28,29 Furthermore, current research investigations have displayed enormous interest in the apprehension of these activities at the molecular level and these sorts of investigations are pushing forward to the development of new biomimetic and bioinspired chemistry. Biomimetic chemistry deals with the understanding of the use of small-molecule metal complexes for specific oxidation reactions and reactivity studies under aerobic oxidation conditions. Copper is present in the active sites of various important metalloenzymes, like oxygenases and oxidases.30,31 In particular, catechol oxidases are type III copper



<sup>&</sup>lt;sup>h</sup> Department of Chemistry, Indian Institute of Technology, Kharagpur 721 302, India. E-mail: dray@chem.iitkgp.ac.in

<sup>&</sup>lt;sup>c</sup> Department of Medical Laboratory Technology, Women's Polytechnic, Hapania Government of Tripura, Tripura, India. E-mail: drsurajitdebnathlab@gmail.com

 $<sup>^</sup>d$  Department of Chemistry, National Institute of Technology Sikkim, Barfung Block, Ravangla Sub-Division, Dist. Namchi, Sikkim - 737 139, India. E-mail: basak.dipmalya@gmail.com

<sup>†</sup> Electronic supplementary information (ESI) available. CCDC 2141297. For ESI and crystallographic data in CIF or other electronic format see DOI: https://doi. org/10.1039/d3nj01515g



# Physical Review C

Outline	Information
Shell effect on fission fragment mass distrib	ution at up to 70 MeV: Role of multichance fission
S. Santra <sup>1,2,*</sup> , A. Pal <sup>1</sup> , D. Chattopadhyay <sup>1,2,†</sup> , A. Kundu Santhosh <sup>1,2</sup> , K. Ramachandran <sup>1</sup> et al.	<sup>1,2</sup> , P. C. Rout <sup>1,2</sup> , Ramandeep Gandhi <sup>1,2</sup> , A. Baishya <sup>1,2</sup> , T.
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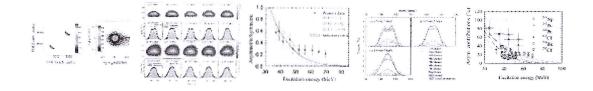
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#### **Abstract**

Mass distributions of fission fragments produced from the compound nucleus (CN), populated by complete fusion of with , were measured for the excitation energies in the range of  $E_{\rm cn}^* \approx 36.7$ –69.7 MeV. Nearly flat tops observed for these distributions indicate the presence of asymmetric fission, contrary to the pure Gaussian mass distributions expected at such high excitation energies. A fit to the mass distribution using three Gaussian functions provides an estimate of individual contributions from symmetric and asymmetric modes of fission. A significant contribution of the asymmetric component observed at CN excitation energies above 40 MeV can be understood only by invoking "multichance fission" in the calculations using the semiempirical model code gef. A systematic analysis of the mass distributions for several heavy transuranic nuclei reveals that the manifestation of the fragment shell effect in the integral mass distributions are visible even up to an initial compound nucleus excitation of  $E_{\rm cn}^* \approx 70$  MeV due to their influence on the distributions of higher chance fissions.



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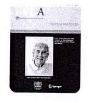
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# Measurement of co(n,xp) cross sections by a surrogate method

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Ramandeep Gandhi M., S. Santra, P. C. Rout, A. Pal, A. Baishya, T. Santhosh, D. Chattopadhyay, K. Ramachandran, G. Mohanto, Jyoti Pandey, A. Diaz-Torres & R. Palit

Kamalghat, Tripura (West)

# **Abstract**

The cross sections for  $^{58}$ Co(n,xp) reactions have been determined in the equivalent neutron energy range of  $^{11.7-16.8}$  MeV by employing the surrogate reaction ratio method and using the cross-section values for the reference reaction  $^{60}$ Ni(n,xp) from the literature. The transfer reactions  $^{57}$ Fe( $^6$ Li, $\alpha$ ) at  $E_{lab}=37$  MeV and  $^{59}$ Co( $^6$ Li, $\alpha$ ) at  $E_{lab}=33$  MeV, are used to populate compound nuclei  $^{59}$ Co\* (surrogate of  $^{60}$ Ni), respectively, at similar excitation energies. The evaporated protons at backward angles measured in coincidence with the projectile-like fragment alpha provide the proton decay probabilities of the compound nuclei. The cross sections estimated using the nuclear-reactions-model code TALYS-1.96 are consistent with the experimental  $^{58}$ Co(n,xp) data for the entire neutron energy range. However, the predictions of the evaluated data libraries ENDF/B-VIII, JEFF-3.3, JENDL-5, ROSFOND-2010 and TENDL-2019 overestimate the present experimental data, indicating the necessity to improve the model parameters of the data libraries for this reaction.

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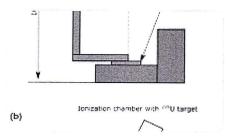
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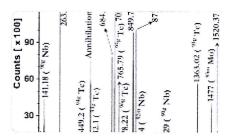
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The cross-sections for the <sup>187</sup>
Re(n,p)<sup>187</sup>W and <sup>185</sup>Re(n,3n)<sup>183</sup>Re
reactions in the energy range
between 13.08 MeV and 19.50 MeV

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# Data Availability Statement

extend sincere thanks to Gaurishankar and Maheshwari for their invaluable guidance and support. Additionally, A.D-T's work is supported by the STFC Consolidated Grant No. ST/P005314/1.

# **Author information**

### **Authors and Affiliations**

Nuclear Physics Division, Bhabha Atomic Research Centre, Mumbai, 400085, India Ramandeep Gandhi, S. Santra, P. C. Rout, A. Pal, A. Baishya, T. Santhosh, K. Ramachandran & G. Mohanto

Homi Bhabha National Institute, Anushaktinagar, Mumbai, 400094, India Ramandeep Gandhi, S. Santra, P. C. Rout, A. Pal, A. Baishya & T. Santhosh

Faculty of Science and Technology (Physics), ICFAI University Tripura, Agartala, 799210, India D. Chattopadhyay

Inter University Accelerator Centre, P.O. Box 10502, New Delhi, 110067, India Jyoti Pandey

Department of Physics, University of Surrey, Guildford, Surrey, GU2 7XH, UK A. Diaz-Torres

Department of Nuclear and Atomic Physics, Tata Institute of Fundamental Research, Mumbai, 400005, India

R. Palit

Registrar,
ICEAL University Tripura
x amalghot, Tripura (West)

Correspondence to Ramandeep Gandhi.

# Additional information

Communicated by Aurora Tumino.

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# About this article

## Cite this article

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ICFAI University Tripure

Kamalghat, Tripure (West)

GOVERNMENT OF TRIPLICA
OFFICE OF THE DISTRICT PROJECT CO-ORDINATOR
SART'A SHIRAWTH ABBUTTAW
GOMATI TISTRICT OFFICE, DAKBANGLOW ROAD,
WALTUR, GOMATI DIST. TRIPLICA
PRE-03821-122225; Fact 03821222472. entail. dec2502.gemal.com.



No.F.11(162)-EDN (G)/Saksham /2023 1361.

Dated 13/07/2023

The Project Coordinator (Smr Silai Banerjee) Saksham Tripura ICFAI University Kamal Ghat, Mohanpur Agartala, Tripura West.

Sub- Requested to attend as a Resource person along with Mentors to discuss about Intellectual Disability, role of Special Educators and Teachers in class room situation.

SIT.

With reference to the Subject cited above I would like to inform you that the Gomati District will organize the District Level training as explicit in the above subject on 17/07/23 to 19/07/23 at 11.00am to 3 pm.

So you are invited. Coordially to attend the training programme along with mentors at Conference hall of District Education Office, Comati District.

Yours faithfully

District Project Coordinator
(District Education Officer)
Udaipur, Comati Tripura

Copy to-

1 The Register of ICFAI University, Kamalghat Agartala , Tripura west.

( 12/2/2/2)

District Project Coordinator (District Education Officer) Udaipur, Gomati Tripura

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# Saksham Tripura Project The ICFAI University Tripura- Project Partner <u>Tentative Teacher training Schedule</u>

3L. 40	Date	Name of the Faculty	Name of the Mentor	Topic Name
	17/07/202 3	Sılali Banerjee	Asim Kr. Majumder Rosemary	Intellectual Disability – An over view
<u>;</u>	18/07/202 3	Subhransu Bandyopadhya Y	Asim Kr. Majumder Anindita Bardhan	Intellectual Disability-Inclusive Teaching
3	19/07/202	Jahidul Islam	Asım Kr. Majumder Mausumi Bhattacharjee	Roles & Responsibilities of Special Education Professionals

18/4/23

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(stablished under section 4(2) of the Institute of Chartered Farancial Analysts of India University, Tripura Act. 2004 Campus Address : Kamalghat (Near Agartala), PIN - 799210, Tel : 0381-2865752/62, Fax : 0381-2865754 Website: www.iutripura.edu.in, Email: registrar@iutripura.edu.in

Name of the Event: District Level Teacher Training Program on Saksham Tripura in Gomati District.

Invitation Link:

ps://mail.google.com/mail/u/0/#inbox/FMfcgzGtwCwnKpVBxld/dqhSSVktfChM

Social Media URL:

https://www.facebook.com/100064511510027/posts/pfbid0341.6Vv18bw2U7nV6YhJgBsaRhRT TGisG7TfGDdwTw8iJeX7ghjQrkAL5gKrctsWPol/Tapp=fbl

Objectives:

The major objective of the "Teachers Training Program on Saksham Tripura" was to

- 1. Explain the concept of Individuals with Intellectual Developmental Disabilities (IDDs) with a special focus on the teaching strategies and classroom management in inclusive schools.
- Develop the knowledge and skills of being an effective teacher for the IDDs.
- Discuss the theoretical aspects of IDDs with the evidence based information.
- 4. Discuss the Roles and Responsibilities of the general teachers and special educators in a classroom setup thus, they will understand how to handle the IDDs in the inclusive ' classroom.
  - 5. Enhance the comprehensive knowledge and practical skills of the teachers in special education and inclusive setup.
  - 6. Empower the teachers to create an inclusive and supportive learning environment that focused on the diverse needs of students - especially for the IDDs enrolled in special and inclusive schools.
  - 7. Help the teachers to understand the strategies so they can efficiently engage with students - especially those who have special needs.

8. Explain the importance of the assessment of children with IDDs to provide appropriate accommodation in an inclusive classroom.

Faculty of Special Education

The ICFAI University Tripura

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- 9. Equip the teachers to enhance their knowledge and skills necessary to support students with Special Needs in a One-on One setting.
- 10. Support the general teachers and special educators to develop Individualized Education Plan (IEP) for their students in coordination with the parents.
- 11. Empower teachers to create an inclusive and supportive learning environment that caters to the diverse needs of students, including those with special educational requirements.
- 12. Increase active participation of the special educators as well as general teachers towards building an inclusive society.
- Organized by: District Project Coordinator under Gomati District.
- Date: 17.07.2023-19.07.2023
- Duration of the programme: 11:00 am to 04:00 pm (each day).
- Number of participant: 70 (Mentors 10, Graduate Teachers 30, Vidyajyoti Special Educators 20, and others 10)
- Number of external participants (if any): 4 (each day)
- Budget (if any): Nil
- Name of the Platform used: Offline.
- Speaker (Details):

Table 1. Programme Schedule and the Topics covered by the Resource Persons/ Mentors.

SI.	Resource Person/ Mentor	Торіс	Time	Date
1.	Mr. Asim Kr. Majumder	Intellectual disability: An overview	12.00-1.00pm	17.07.2023
2.	Ms. Rosemary	Intellectual disability: An over view of the method and strategies in the classroom situation.	1.00-2.00pm	17.07.2023
3.	Dr. Silali Banerjee	Intellectual Disability: An overview	2.00-3.00 pm	17.07.2023
4.	Ms. Madhumita Majumder	Activities of Daily Living of individuals with Intellectual Developmental Disabilities	3.00-4.00pm	17.07.2023
5.	Ms. Anindita Bardhan	Intellectual Disability- Inclusive Teaching	11.00-12.00	18.07.2023
6.	Mr. Subhransu Bandyopadhyay	Intellectual Disability-Inclusive Teaching	12.00-1.00	18.07.2023
7.	Ms. Mousumi Bhattacharjee	Roles and Responsibilities of Special Education Professionals	11.00-12.00	19.07.2023

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8. Md. Jahidul Islam	Roles and Responsibilities of Special Education Professionals	12.00-1.00	19.07.2023
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## • Details of the Programme:

Day 1

- ❖ The Teacher Training Programme was organized for Special Educators and teachers who are presently working in different schools in Gomati District. The Teacher training programme was began on 17.07, 2023. The programme was mainly organized for the Special Educators and the General Teachers who are working in schools. The Training programme was held in the District coordinator Office in Gomati District.
- The programme started by welcoming the Resource Person Dr. Silali Banarjee Principal of Faculty of Special Education and Project Coordinator ICFAI University, Tripura.
- The programme was started at 11:00 am with the warm well come speech by Mr. Jain Victor Reang (District Education Office Gomati) and Mr. Alokananda Jamatiya (Inspector of School). It was followed by the gift, handing over note pad, file cover, pen and flower.
- The introductory speech was given by the Resource Person Dr. Silali Banerjee, Principal of Faculty of Special Education and Project Coordinator, ICFAI University, Tripura.
- Mr. Asim Kumar Majumder, Mentor of the Saksham Tripura Project, the 1<sup>st</sup> speaker of the day was shared the relevant information on Intellectual Developmental Disabilities.
- ❖ It is followed by Miss. Rosemary, Mentor, the 2<sup>nd</sup> speaker of the day, who presented her views the Intellectual Disability: an overview of the method and strategies in classroom situation.
- ❖ After that Dr. Silali Banerjee Principal of Faculty of Special Education and Project Coordinator and the 3<sup>rd</sup> speaker of the day was explained the concept of Intellectual Developmental Disabilities in detail. She explained the skills to be developed by the general teachers and the special educators to manage the classroom situation, assessment process, IEP development, inclusive teaching strategies, use of assistive technologies, and behavior management.
- Next to that, discussion session was opened for all and some of the teachers were asked question on how to deal with Children with Special Needs in an Inclusive classroom and the resource persons were explained it with suitable examples in detail.
- It was followed by lunchbreak at 2.00pm-3.00pm. Lunch management was looked after by hospitality team of the office bearer.
- \* The programme was restarted at 3.00pm and was continued up to 4.00pm.
- Ms. Madhumita Majumder, IE Coordinator, was the speaker of the session who discussed about the daily living activities of individuals with Intellectual Developmental Disabilities.



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It was ended with a beautiful message and the programme was successful due to the active participation of the resource.

#### Day 2

- ❖ The Teacher Training program was continued on the 2<sup>nd</sup> day for teachers and Special Educators working in schools in Gomati District.
- ❖ The first speaker of the day was Ms. Anindita Bardhan who discoursed the topic on Intellectual Disability in Inclusive Education in Session 1.
- ❖ It was followed by lunchbreak at 2.00pm-3.00pm. Lunch management was looked after by hospitality team of the office bearer.
- The second speaker of the day was Mr. Subhransu Bandyopadhyay who discussed about the teaching strategies and classroom management on the next session.
- ❖ The topics were well explained by the resource persons of the day and there was open forum for the participants for question and answers. The resources persons were clarified the queries of the participants before the sessions ends.
- ❖ It was helpful for the participants to understand the characteristics of IDDs and their accommodations in an inclusive school.

#### Day 3

- ❖ In the 1<sup>st</sup> session of training program Mentor Miss. Mausumi Bhattacharjee presented the Roles and Responsibilities of Special Education professionals and Discussed the responsibilities of Special Educators and teachers in an inclusive classroom.
- ❖ In the 2<sup>nd</sup> Session of the training program Asst. Professor Mr. Md Jahidul Islam presented professional Ethics, Code of Conduct for the Special Educators.
- These Session encouraged general teachers that how much more efficiently they handle the classes, and also it gives idea to ours specials educators that they can work with different ideas which help the special needs Students.
- After end of the presentation there is a questions answering sessions and they asked some questions and cleared their doubts.
- Teachers from government schools and the Special Educators from different background and different experiences and few fresher special Educators were there for whom the sessions were impactful.

#### Outcomes:

After attending the 3-day sessions the participants

Gained knowledge on how to provide need-based support and education to each and every Students in an inclusive classroom.



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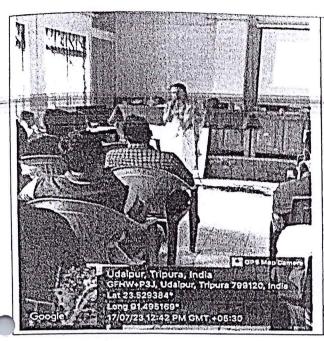
- ❖ Developed a deeper understanding of inclusive teaching Methodologies, enabling them to employ a variety of instructional strategies to meet the diverse needs of students in their
- \* Equipped themselves to increase engagement and accessible learning experiences for all
- Developed the knowledge of tailored teaching plans, collaborate with parents and support staff, and assess student's progress to help them achieve important learning milestones.
- In addition, the Sessions helped the participants in:
  - o preparing lesson plans,
  - o classroom management,
  - o create a supportive and positive learning environment
  - o conduct assessment for identification, and
  - o gain knowledge of behaviour interventions to help students move forward towards a better future.
- These Session encouraged general teachers that how much more efficiently they can handle the classes.
  - It provided diversified ideas to the specials educators so that they can apply the ideas to teach effectively.
  - \* The sessions were useful for the general teachers as they learned the strategies to handle the students and address the issues that the students facing in a classroom environment.
  - Furthermore, the sessions focused on sharing ideas and approaches to meet the need of students with multiple disabilities so the teachers gained knowledge on how to handle the students with different disabilities such as hearing impairment, speech and language impairment, and visual impairment.
  - After attending the sessions, the participants enhanced their skills and knowledge so they can actively and efficiently they work in these field.
  - Finally, a good rapport was built between the general teachers and the special educators and a message of avoiding biasness was shared.

Photos of Day 1:

Pictures of 1st Day Program (17/7/2023)

Faculty of Special Education The ICFAI University Tripura.

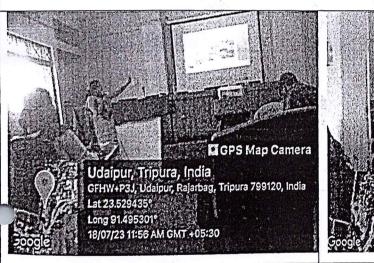
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#### Photos of Day 2:

#### Pictures of 2<sup>nd</sup> Day Program(18/7/2023)

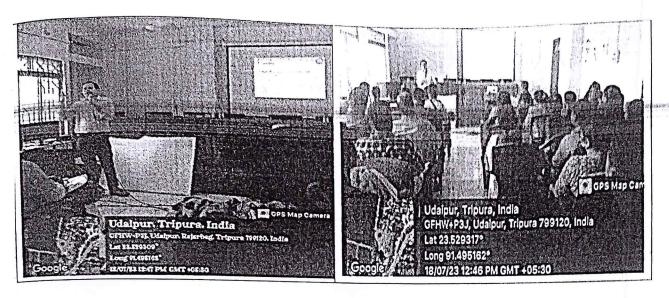




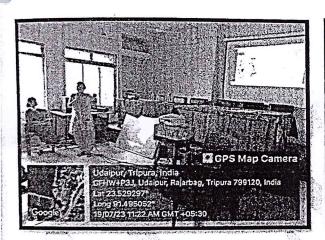
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The ICFAI University Tripura.



#### Pictures of 3<sup>rd</sup> Day Program (19/7/2023) Photos of Day 3:





# Responses of the 5 Days Teachers Training Program.

### able 1. Opinions of the Participants

	Responses (N=54)								Kann	
Questions	1	ngly ree	Ag	ree	Satis	sfied	Neı	ıtral	Disa	gree
	N	%	N	%	N	%	N	%	N	%
The three days Session which is taken is really useful for you.	21	39	17	31	14	26	2	4	0	0
The information about Inclusive Education which is given is well prepared.	16	30	23	43	14	26	1	2	0	0

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Faculties are able to make the Subject interesting.	16	30	25	46	11	20	2	4	0	0
The session was an effective								COMPANIES OF MARKET STREET		paragraph of the business
investment.	23	43	22	41	7	13	en I	2		2
The overview effectively has explained the key features of Intellectual Developmental Disability.	19	35	26	48	9	17	0	0	0	0
The sessions will help in future to work with the Students.	28	52	19	35	5	9	2	4	0	0
The training resources were appropriate for teacher's need.	14	26	33	61	4	7	2	4	1	2
I thoroughly enjoyed the sessions.	17	31	27	50	7	13	2	4	1	2
I have learnt lots of Teaching Strategies during these training for classroom management.	19	35	23	43	10	18	2	4	0	0
The sessions had a good mix of theory and practical strategies.	16	30	26	48	10	18	2	4	0	0
	The session was an effective investment.  The overview effectively has explained the key features of Intellectual Developmental Disability.  The sessions will help in future to work with the Students.  The training resources were appropriate for teacher's need.  I thoroughly enjoyed the sessions.  I have learnt lots of Teaching Strategies during these training for classroom management.  The sessions had a good mix of theory	The session was an effective investment.  The overview effectively has explained the key features of Intellectual Developmental Disability.  The sessions will help in future to work with the Students.  The training resources were appropriate for teacher's need.  I thoroughly enjoyed the sessions.  Thave learnt lots of Teaching Strategies during these training for classroom management.  The sessions had a good mix of theory	The session was an effective investment.  The overview effectively has explained the key features of Intellectual Developmental Disability.  The sessions will help in future to work with the Students.  The training resources were appropriate for teacher's need.  I thoroughly enjoyed the sessions.  Thave learnt lots of Teaching Strategies during these training for classroom management.  The sessions had a good mix of theory	The session was an effective investment.  The overview effectively has explained the key features of Intellectual Developmental Disability.  The sessions will help in future to work with the Students.  The training resources were appropriate for teacher's need.  I thoroughly enjoyed the sessions.  Thave learnt lots of Teaching Strategies during these training for classroom management.  The sessions had a good mix of theory	The session was an effective investment.  The overview effectively has explained the key features of Intellectual Developmental Disability.  The sessions will help in future to work with the Students.  The training resources were appropriate for teacher's need.  I thoroughly enjoyed the sessions.  Thave learnt lots of Teaching Strategies during these training for classroom management.  The sessions had a good mix of theory	Faculties are able to make the Subject interesting.  The session was an effective investment.  The overview effectively has explained the key features of Intellectual Developmental Disability.  The sessions will help in future to work with the Students.  The training resources were appropriate for teacher's need.  I thoroughly enjoyed the sessions.  Thave learnt lots of Teaching Strategies during these training for classroom management.  The sessions had a good mix of theory	Faculties are able to make the Subject interesting.  The session was an effective investment.  The overview effectively has explained the key features of Intellectual Developmental Disability.  The sessions will help in future to work with the Students.  The training resources were appropriate for teacher's need.  14 26 33 61 4 7  I thoroughly enjoyed the sessions.  17 31 27 50 7 13  I have learnt lots of Teaching Strategies during these training for classroom management.  The sessions had a good mix of theory	Faculties are able to make the Subject interesting.  The session was an effective investment.  The session was an effective investment.  The overview effectively has explained the key features of Intellectual Developmental Disability.  The sessions will help in future to work with the Students.  The training resources were appropriate for teacher's need.  The sessions during these training for classroom management.  The sessions had a good mix of theory	Faculties are able to make the Subject interesting.  The session was an effective investment.  23 43 22 41 7 13 1 2  The overview effectively has explained the key features of Intellectual Developmental Disability.  The sessions will help in future to work with the Students.  28 52 19 35 5 9 2 4  The training resources were appropriate for teacher's need.  14 26 33 61 4 7 2 4  I thoroughly enjoyed the sessions.  17 31 27 50 7 13 2 4  I have learnt lots of Teaching Strategies during these training for classroom management.  The sessions had a good mix of theory	Faculties are able to make the Subject interesting.  The session was an effective investment.  The overview effectively has explained the key features of Intellectual Developmental Disability.  The sessions will help in future to work with the Students.  The training resources were appropriate for teacher's need.  I thoroughly enjoyed the sessions.  Thave learnt lots of Teaching Strategies during these training for classroom management.  The sessions had a good mix of theory  The sessions had a good mix of theory  The sessions had a good mix of theory

N=Number, % = Percentage

The participants of the Outreach Program were provided their opinion presented in Table 1. The participants were special educators, general teachers, and block resource persons of all eight districts of the Tripura state. It was observed that the majority of the participants were strongly agreed and agreed with the usefulness of the program. Most of the participants were agreed that the information shared regarding Inclusive Education were well prepared. The presentation given by the faculties made the subject interesting and it was agreed by majority (46%) of the participants. Among the participants, 43% were strongly agreed and 41% were agreed with the participants. Among the participants, 43% were strongly agreed and 41% of the participants were statement that the program was an effective investment. In addition, 48% of the participants were statement that the overview was explained effectively about the key features of Intellectual agreed that the overview was explained effectively about the key features of Intellectual Developmental Disability. Majority (52%) of them were strongly agreed with the statement that Developmental Disability. Majority (52%) of them were strongly agreed with the statement that Developmental Disability agreed that the training resources were appropriate for teacher's need. Furthermore, most of the participants were informed that they thoroughly enjoyed the program. It Furthermore, most of the participants were informed that they thoroughly enjoyed the program. It

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eaching learning. Finally, the sessions were a good mix of theory and practical strategies as it was atongly agreed (30%) and agreed (48%) by majority of the participants.

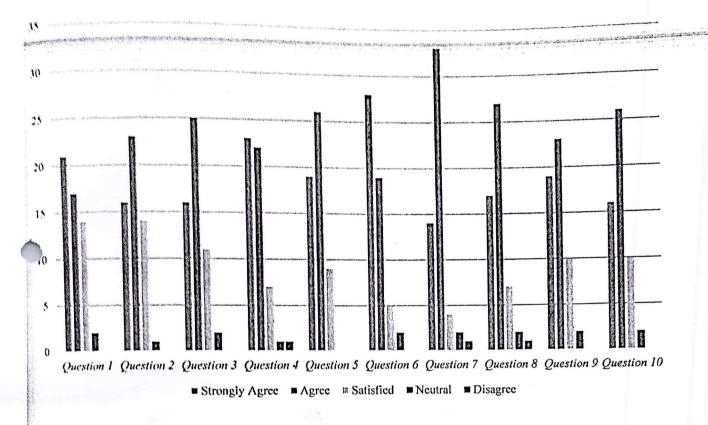


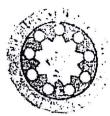
Figure 1. Responses given by the Teachers and Special Educators

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### **Attendance Sheet**

Name of the Event: District Level training to special Educators and Teachers on different Disabilities.

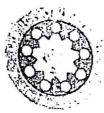
Date: 17/07/23

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0.3	Ankita Deb	A 1 '1	8837240253		123
04.	Dipanwita Sorkar	Special Educator	8794612307	Darkar 10 1/23	
95.	puja Deig	Special Educator	8794326436		
06.	Somon Nong.	SE.	9863601180	17/07/23	
0.7	Pretiva Debrath	Special Education	9863053501	A 17/07/23	
08.	Parmita Debrath	OUT	8257863547	12/07/23	
09	Swonito Shil	Special	7005430921	17/40/23	
10.	Rojosue Subradhan	Special	9774909518	P.7.07.23	
14.	Ananika Delo Chondhuri	Special	9774130840	That wor	
12.	Soma Dazgupta	G.T.	7005984662	1 2 1 1 1 1 1 2 1	
13.	Rejassee_ Barik.	Special	8494526218	14/4/47	-
14.	Arup Tripura	Egorator	6009004054	De 17/07/23	



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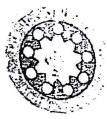
Date: 17/07/23

				( )
SL.	Name of the Participants	Designation	Contact No.	Signature
	Ajoy kumat Das	Special Educator	9774551224	A-KQAD
2.	Abdul Mannan Bhuiya.	GT	9485017244	Appliniza
3	Mousumi Mazimder	Pyr	8837024944	Sonfr
4	Saranarthi Keu	CT.	690946809	Luce
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8.	Farita Gratin Majarondo	A.T.	9612401154	2.2%
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Website: www.iutripura.edu.in, Email: registrar@iutripura.edu.in

# **Attendance Sheet**

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Date: 17/07/23

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17.	Tarper Debbarner	Educator	8257835660	Drower
18.	Riaj Hossain	UMT	7005882327	Rossair
19	Teresa kaipeng	specially	7085452241	Charpeng
	Mousami Debbama	special		Mon
		100000	7863390120	disa
22	Assure Jamatia Papia Sankon	Special	6009931771	Jeanlan_
-	Biswazit Das	Special Educator	9612279902	Day in
24.	Subsola Pohownik	Special Edn	9862604867	Boumes
25	Makhan Ch Sarkan	G/T	8414858660	Ahn.
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Name of the Event: District Level training to special Educators and Teachers on different Disabilities.

Date: 17/07/23

	1101123			
SL. No.	Name of the Participants	Designation	Contact No.	Signature
01	Soumi Chefmeleonty	C.T	6033072858	(mod ) 17107123
02	Kähitish a. Das.	0/T	7628905739	Con 7/2023
83.	Sisirc Kr. Banik	elT	9383173398	May Hottes
04.	Saival Datta	CYT	3826 CASCI	11/123
05.	Sisibarkar.	· CUT	98622344	200
90	Jayaorta Debnath.	PGT	9612386210	Colonath 12/00/23
40	Suman Chakrabory	GLT	8787343604	04/11/07/23
,08	Parcimal Dos.	917	700544028	1 7 17/07/23
. 09	Subhasish Tebbasma	GIT	986252400	8A) 10H23
10.	Japan Kr. Das	GIT	9612148452	9/3/27
11.	Sujit Das.	G1/T	600927664	1000
12.	Mitan Sarkar	GT	7005432947	7 4707/23
13.	Biplob Debnath	.47	7005753409	(3) 14/01/83
14.	Gurubadabaul	A/T	9862116526	1 /202 17/7/23
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Website: www.iutripura.edu.in, Email: registrar@iutripura.edu.in

### **Attendance Sheet**

Name of the Event: 5 day Training Programme

Date: 18/07./2023

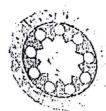
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SL. No.	Name of the Participants	Designation	Contact No.	Signature
1.	Ajoy kumate Das	Special	9774551229	A.K. Sas
2.	Anamika Delo (he adher	Special	9774130840	A Deb
3.	Mousami Debbarma	special	6909986606	10:10
4.	Priyanda Shath	Speialeducator	7629912877	Varfathety
5.	Rinika sabana	Specialiducalin		9
6.	Papia Sankan.	Special Educator	6009931771	Pearlan
Ø.	Pratop Singh frank	Col7	813180 1115	1
7.	Prating Webrath	Special	986305350	
8.	Teresa kaipeng	special too	7085452241	
a	Asuree Jamaha	special		20 disto
-	Jaspar Deflarme	Special Educator	8269835666	Then
10.		Special Educator	7629993219	Jun .
11.	Johan Tripura	Special	763081637	7 Nay
12.	Naza Vma Vann	Specien Specien	873181459	2 Q.m.
14.	Ackhi Banit	Faucada		2.06

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# Attendance Sheet

Name of the Event: - District Level training to special Educators and Teachers on different Disabilities.

Date: 19/7/23

		*		
SL. No.	Name of the Participants	Designation	Contact No.	Signature
l.	Topor Debbarner	Special to	8159835660	Dre
Q.	Perega Kaipene	special to	708545224	Marpy
3.	Mousami Debbama	special	6909986606	Mod
y	Ashel Jamatia	edunabe	786339012	desh
5.	Papia Sankan	speelal Educator	6009931771	Bonlan
6.	Pringanga Sobrath.	Special Educator	762991287\$	19/07/23
1	Ringa selforna	Special	9774924510	3/07/21
8.	Prating Debreth	Special on	986305250	18/07/23
9.	Surajid Majundar	Special Education	8131911049	Summing the same
	1.0	Special	1 942677003	3 Am
10.	Alia Banua	Spei an Colomb	6009004054	Au
11.	Arup Tripora	Special	8774374583	3 Ann
17.	An Kasmita Majundan	Speciel Speciel	163087 637	7 Nag.
13.	Magavma Vama	Special w	8731814592	Que
14.	Kathi Banik	Edución	(a) (b) (a)	10,3

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