## **Tripura University**

(A Central University) Suryamaninagar 799 022 Tripura, India



Phone: 0381 237 9380 Fax: 0381 237 4802 e-mail: dean\_science@tripurauniv.in

Dated: 09.08.2019

NO.F.TU/Dean (Science)/BFS/10/16

# Proceedings of the 9<sup>th</sup> meeting of Board of Faculty of Studies (BFS), Science held on 3<sup>rd</sup> May, 2019 at 3.00 P.M. in the Council Hall, Tripura University.

#### **Members Present:**

1. Professor S. Banik,	Dean, Faculty of Sciences, Tripura University	-Chairman
2. Professor Anjan Mu	ukherjee, Department of Mathematics, Tripura University.	-Member
3. Professor S.K. Sil,	Department of Human Physiology, Tripura University	-Member
4. Professor R.N. Dut	ta Purkayastha, Department of Chemistry, Tripura University	-Member
5. Professor M.K. Sin	gh, Department of Chemistry, Tripura University-	-Member
6. Professor R.K. Natl	n, Department of Chemistry, Tripura University	-Member
7. Professor B.K. Datt	a, Department of Botany, Tripura University	-Member
8. Professor A.K. Sah	a, Department of Botany, Tripura University	-Member
9. Professor R.K. Sinh	na, Department of Botany, Tripura University	-Member
10. Professor D. Bhatta	charjee, Department of Physics, Tripura University	-Member
11. Professor P.S. Chau	ndhuri, Department of Zoology, Tripura University	-Member
12. Professor Debasish	Maiti, Department of Human Physiology, Tripura University-	-Member
13. Dr. S. Chattopadhy	aya, Department of Physics, Tripura University	-Member
14. Dr. Y.V. Krishnaial	h, Department of Geography & Disaster Management, Tripura University	-Member
15. Dr. R.K. Mahapatra	a, Department of Library and Information Science, Tripura University	-Member
16. Dr. Swanirbhar Ma	jumder, Department of I.T, Tripura University	-Member
17. Dr. Sabyasachi Das	Gupta, Department of Forestry & Biodiversity, Tripura University -	-Member
	th, Department of Mathematics, Tripura University	-Member
	Department of Forestry & Biodiversity, Tripura University	-Member
		-Member
<b>U</b> 1	partment of Zoology, Tripura University	-Member
•	partment of Human Physiology, Tripura University	-Member
	apa Rupa, Department of Material Science & Engineering, Tripura University	
3 . 1	artment of Library & Information Science, Tripura University	-Member
	, Department of CSE, Tripura University	-Member
¥ •	hiri, Department of Human Physiology, Tripura University	-Member
	kar, Department of ECE, Tripura University	-Member
	ar, Department of Microbiology, Tripura University	-Member
	harma, Department of Microbiology, Tripura University	-Member
	owmik, Department of ECE, Tripura University	-Member
	Department of Chemical & Polymer Engineering, Tripura University	-Member
• •	ent of IT, Tripura University	-Member
· ·	epartment of Pharmacy, Tripura University	-Member
34. Ms. Sangita Das Bi	swas, Department of Electrical Engineering, Tripura University	-Member

At the outset, Professor S. Banik, Dean, Faculty of Sciences & Chairman, Board of Faculty of Studies, Science extended welcome to all the members present in the meeting.

Then agenda wise discussion was initiated.

Agendum – 1/09/19: To confirm the proceedings of 8<sup>th</sup> meeting of BFS of Science dated 19.07.2018.

**Resolution**: Confirmed.

Agendum -2/09/19: To report the action taken on the proceedings of  $8^{th}$  meeting of the BFS of Science held on 19.07.2018.

Resolution: Reported.

Agendum – 3/09/19: To report and recommend the names of outside expert, E-expert, names of adjudicator, etc. of the Research candidates under the Faculty of Sciences:

**Resolution**: The names of outside experts involved in Pre-Ph.D. Public Seminar and names of adjudicator of the following students (18 candidates) were reported.

Sl.	Name of the	Department	Title of Ph. D. Thesis	Supervisor	Expert List
No	Scholar				
1.	Istak Ahmed	Geography & D/M	Sedimentation Problem of Regulated Rivers and its Impact on Geographical environment: A Case Study of the Gumti River, Tripura.	Dr. Nibedita Das (Pan), T.U.	Expert List is placed in file.
2.	Sanjit Sutradhar	Chemistry	Synthesis and Characterization of Complexes of Some Transition Metal ions with Some Dithiolate and Amine Ligands.  Analysis of Infrared Breast  Prof. M.K. Singh, T.U.  Dr. M.K.		-do-
3.	Usha Rani Gogoi	Computer Science & Engineering	Analysis of Infrared Breast Thermograms for Abnormality Detection.	Dr. M.K. Bhowmik, T.U, Supervisor & Prof. A.K. Ghosh, Hon'ble Ex-V.C, Co- Supervisor.	-do-
4.	Sumanta Saha	Mathematics	A study on Hybridized ICA, PCA, Rough Set model and its application in the field of Image Processing.	Prof. Anjan Mukherjee, T.U.(Supervisor) and Dr. S. Bhattacharya Halder, T.U (Co-Supervisor).	-do-
5.	Srijita Barman Roy	Mathematics	A Study on Image Processing Techniques Using Various Generalized forms of ICA and	Prof. Anjan Mukherjee, T.U.(Supervisor) and Dr. S.	-do-

			PCA.	Bhattacharya	
				Halder, T.U	
				(Co-Supervisor).	
6.	Utpal Pal	Mathematics	A Study on Bayesian Decision Theoretic Rough Set using R	Dr. S. Bhattacharya	-do-
			Package.	(Halder), T.U.	
7.	Kakali Das	Computer Science & Engineering	Prediction of Health Abnormality Using Thermal Images.	Dr. M.K. Bhowmik, Supervisor & Prof. B.K. De, Co-Supervisor	-do-
8.	Shawli Bardhan	Computer Science & Engineering	Analysis of IR Images For Detection of Inflammatory Knee Joint Diseases.	Dr. M.K. Bhowmik, T.U.	-do-
9.	Sudipta Sinha	Botany	Mycorrhizal association and its influence on growth of selected species of Bamboos of Tripura.	Prof. A.K. Saha, T.U.	-do-
10.	Sanchita Bhattacharya	Botany	Fungal community composition and bioactive potential of selected fungal endophytes isolated from Ananas comosus L. (Bromeliaceae) of Tripura.	Prof. A.K. Saha, T.U.	-do-
11.	H. Reshmi Singha	Botany	Genetic diversity and in vitro morphogenesis in two wild Solanum species of Tripura.	Prof. Rabindra Kumar Sinha (Supervisor) and Prof. Sangram Sinha (Co- Supervisor)	-do-
12.	Amal Debnath	Forestry & Biodiversity	Impact Assessment of Chromolaena odorata (L.) King & Robinson (Alien Invasive) on Diversity and Composition of Vegetation, Soil Properties and Litter Decomposition Rate in Atharamura Forest Range of Tripura State.	Dr. Bimal Debnath, T.U.	-do-
13.	Chandan Debnath	Physics	Characterizations of Hybrid Langmuir-Blodgett (LB) Films Prepared by Electrostatic	Prof. D. Bhattacharjee, T.U.	-do-

			Interactions.		
14.	Bapan Paul	Physics	Investigation on different solar and Geophysical Phenomena using GPS derived Total Electron Content (TEC) data over Equatorial Ionization Anomaly (EIA) crest region.	Dr. Anirban Guha, T.U.	-do-
15.	Somen Debnath	Mathematics	Generalization of fuzzy soft matrices and their applications.	Prof. Anjan Mukherjee, T.U.	-do-
16.	Dipanwita Banik	Zoology	Neurosecretory System and its Role in Regeneration and Reproduction of Epigeic, Endogic and anecic Species of Earthworms in Tripura (INDIA).	Prof. P.S. Choudhury, T.U.	-do-
17.	Aprajita Singh	Zoology	Biology and Aquaculture of Aar, Aorichthys aor (Hamilton, 1822) with reference to its Conservation.	ar, Aorichthys aor (Hamilton, 822) with reference to its	
18.	Sourabh Chakraborty	Zoology	The Ecology of Earthworm Species in the Bamboo Stands of west Tripura, with special Reference to the Biology of two Dominant Species.	Prof. P. Choudhury, T.U.	-do-

## $Agendum-4/09/19: To \ report \ the \ name \ of \ Ph.D. \ Students \ who \ have \ been \ awarded \ Ph.D. \ Degree \\ Provisionally \ in \ different \ subjects \ under \ the \ Faculty \ of \ Sciences.$

Resolution: Reported.

Sl. No	Name of the	Department	Title of Ph. D. Thesis	Supervisor	Date of
	Scholar				Award
1.	Ankita Chakraborty	Chemistry	Studies on the development of some greener protocols for the synthesis of highly functionalized heterocyclic molecules.	Prof. S. Majumder, T.U.	24.08.2018
2.	Abhijit Santra	Geography & Disaster	Changing Land Use Pattern of the Agartala City, Tripura: A	Dr. Saptarshi Mitra, T.U.	13.09.2018

		Management	Geographical Perspective.		
3.	Somnath Kar	Botany	Reproductive biology of some medicinal plants of Tripura.	Prof. B.K. Datta, T.U.	16.11.2018
4.	Debjani Rakshit	Mathematics	Studies on I- Statistically Convergent Sequences.	Dr. Shyamal Debnath, T.U.	16.11.2018
5.	Krishna Talapatra	Botany	Study of root fungal endophytes in selected invasive plants of Tripura, Northeast India.	Dr. Panna Das, T.U.	10.12.2018
6.	Kishan Saha	Botany	Cytological and Molecular Studies in some species of Zingiberaceae of Tripura.	Prof. Sangram Sinha, T.U.	10.12.2018
7.	Rajib Lal Deb Barma	Geography & Disaster Management	Evolution and Characteristics of Rural Settlements in South Tripura District, Tripura.	Dr. Saptarshi Mitra, T.U.	12.12.2018
8.	Sumit Sarkar	Physics	Synthesis of a few Anisotropic Noble Metal Nanocrystal with the Study of their optical Properties and their Suitable Applications.	Dr. Ratan Das, T.U.	27.12.2018
9.	Kanu Shil	Human Physiology	Alteration in Carbohydrate, Protein and Fat Metabolism in Liver, Kidney, Muscle and Brain Following Sub-Acute Chromium Exposure.	Dr. Sudipta Pal, T.U.	22.01.2019
10.	Singh Kwrak Santua Jamatia	Zoology	Earthworm Resource and its Community Characters in the areas of Tea Plantations in Tripura.	Prof. P.S. Choudhuri, T.U.	29.01.2019
11.	Pintu Debnath	Physics	Study of Molecular Aggregates of Cyanine Dyes in Ultra- Thin Films.	Dr. Syed Arshad Hussain, T.U.	14.02.2019
12.	Sima Majumdar	Geography & Disaster Management	Changes of Drainage Systems and their Impact on Landuse between Baramura and Atharamura Hill Ranges, Tripura.  Dr. N. Das(Pan), T.U.		27.03.2019
13.	Rahul Bhattacharjee	Physics	Theoretical studies of the electronic structure and different properties of some compounds and alloys employing Density	Dr. S. Chattopadhyaya, T.U.	27.03.2019

			Functional Theory.		
14.	Soma Banik	Physics	Adsorption of water soluble Ionic Molecules into the	Prof. D. Bhattacharjee, T.U.	27.03.2019
			Template Langmuir Monolayer at the Air- water Interface and in Ultra Thin Films.	Bhattacharjee, 1.0.	

#### Agendum – 5/09/19: To consider the syllabus of different subjects of Faculty of Sciences.

**Resolution**: Following syllabus was accepted.

- 1. Revised syllabus of M.Tech course and Ph.D. Course Work, Department of ECE.
- 2. P.G. and Ph.D. Course work syllabus of IT Department.
- 3. MLIS & Ph.D. Course work syllabus of Library & Information Science Department.
- 4. P.G. and Ph.D. Course work syllabus of Electronics & Communication Engineering Department.
- 5. Syllabus of Pharmacy Department.
- 6. Letter from Dept. of E.E.
- 7. P.G. and Ph.D. Course work syllabus of Geography & Disaster Management Department.
- 8. Modified syllabus of Department of Molecular Biology & Bioinformatics.

### Agendum -6/09/19: To consider the names of Students to be enrolled for Ph.D. Registration.

Sl. No	Name of the Scholar	Departme nt	Title of Ph. D. Thesis	Supervisor	Date of Registra tion	Ph.D. Mode	Categ	Male/ Female	Ph.D. Rules
1.	Sarapynbia ng Marwein	Pharmacy	Synthesis and Antiproliferative Evaluation of Some Newer Spiroheterocyclic Derivatives.	Dr. P. Acharya, T.U.	27.03. 2018	Full time	ST	Female	2016
2.	Stabak Roy	Geograph y & Disaster Managem ent	Infrastructural Attributes and Aspects of Railway Transport System in Tripura: A Geographical Analysis.	Dr. Saptarshi Mitra, T.U.	17.12. 2018	Full time	UR	Male	2014
3.	Parminder Kaur	Physics	Characterization of Atmospheric Aerosols and its Radiative Forcing	Dr. Anirban Guha,	06.11. 2018	Full time	UR	Female	2016

			over North-East India.	T.U.					
4.	Debankita Ghosh	Physics	First principle based theoretical investigation of physical properties of some chalcogenide ternary and quaternary alloys containing alkaline-earth and transition metal elements.	Dr. SuryaChat topadhyay a, T.U.	06.11. 2018	Full time	OBC	Female	2016
5.	Manish Debbarma	Physics	Density functional theory (DFT) based calculations of physical properties of some mercury (Hg) doped transition metal chalcogenide ternary alloys.	Dr. SuryaChat topadhyay a, T.U.	06.11. 2018	Full time	ST	Male	2016
6.	Sayantika Chanda	Physics	Theoretical investigation of physical properties of some chalcogenide ternary and quaternary alloys containing elements of transition metal group using density functional theory (DFT) based full- potential linearized augmented plane wave (FP-LAPW) approach.	Dr. SuryaChat topadhyay a, T.U.	06.11. 2018	Full time	UR	Female	2016

7.	Utnal	Physics	Calculations of	Dr.	06.11.	Part	SC	Male	2016
	Utpal Sarkar	rnysics	physical properties of some alkaline-earth element doped transition metal chalcogenide ternary alloys using density functional theory (DFT) based full-potential linearized augmented plane wave (FP-LAPW) methodology.	Dr. SuryaChat topadhyay a, T.U.	2018	time	SC	Male	2016
8.	Tania Mondal	Chemistry	Studies on the Photophysical Properties of some Organic Molecules by Fabrication of Ultrathin Films.	Prof. R.K. Nath, T.U.	13.03. 2018	Part time	UR	Female	2016
9.	Utsab Banerjee	Electronic s & Communi cation Engineeri ng	Study on Circularly Polarized Antenna's for Modern Wireless Communication Systems.	Dr. Anirban Karmakar, T.U(Super visor) and Dr. Anuradha Saha, Dept.of AEIE, Netaji Subhash Engineeri ng College, Kolkata, India (Co- Supervisor)	07.12. 2018	Part time	UR	Male	2016
10.	Abhirup Bhawal	Electronic s & Communi	Study on Vivaldi Antenna Systems with Improved	Dr. Anirban Karmakar,	29.01. 2019	Part time	UR	Male	2016

		cation Engineeri ng	Radiation Characteristics for Wireless Communications Applications.	T.U(Super visor) and Dr. Anuradha Saha, Dept.of AEIE, Netaji Subhash Engineeri ng College, Kolkata, India (Co-Supervisor)					
11.	Debasish Datta	Mathemat ics	Studies on Double Sequences of Complex Uncertain Variables.	Prof. B.C. Tripathy, T.U.	24.09. 2018	Part time	OBC	Male	2016
12.	Rakhal Das	Mathemat ics	Studies on Topological Space, Ideals and Spatial topological Relation.	Prof. B.C. Tripathy, T.U.	24.09. 2018	Full time	SC	Male	2016
13.	Atrayee Dutta	Botany	Morphological and Molecular Characterization of some Wild Edible Mushrooms of Tripura and their Potent Biological Activities.	Prof. A.K. Saha (Superviso r) and Prof. S. Sinha (Co- Supervisor )	14.11. 2018	Full time	UR	Female	2016
14.	Biswajit Baishnab	Botany	Studies on Orchid Diversity of Tripura with Special Reference to Reproductive Biology of Selected Species.	Prof. B.K. Datta, T.U.	14.11. 2018	Full time	OBC	Male	2016
15.	Bibhash	Botany	Morphological, Biochemical and	Prof. R.K. Sinha	14.11.	Full	OBC	Male	2016

	Nath		tissue Culture Studies in Two Varieties of Musa Species of Tripura.	(Superviso r) and Prof. S. Sinha (Co- Supervisor )	2018	time			
16.	Biplab Banik	Botany	Mapping, Modelling of Metapopulation Dynamics and Habitat Suitability of Selected Threatened Taxa In Tripura, North East India.	Prof. B.K. Datta, T.U.	14.11. 2018	Full time	UR	Male	2016
17.	Dipan Sarma	Botany	Evaluation of Biological Activities Using Crude Extracts and Green Synthesis of Silver Nanoparticles From Selected Medicinal Plants of Tripura.	Prof. B.K. Datta (Superviso r) and Prof. A.K. Saha (Co- Supervisor )	14.11. 2018	Full time	UR	Male	2016
18.	Supriya Adhikari	Botany	Cytology, In- Vitro Clonal Propagation and Phytochemical Characterization of Stichoneuron Membranaceum Hook.F.	Prof. R.K. Sinha (Superviso r) and Prof. S. Sinha (Co- Supervisor )	14.11. 2018	Full time	UR	Male	2016
19.	Udipta Das	Botany	Characterization of Fungal Endophytes in Some Ethnomedicinal Plants and Their Role in Grrowth of Selected Cereals and Pulses.	Prof. A.K. Saha (Superviso r) and Dr. Panna Das (Co- Supervisor )	14.11. 2018	Full time	SC	Male	2016

20.	Parbati	Zoology	Reproductive	Prof. S.	01.05.	Part	UR	Female	2014
	Dasgupta		Biology and	Banik,	2019	time			
			Aquaculture of	T.U.					
			Wallago attu with						
			reference to its						
			Conservation in						
			freshwater of						
			Tripura, India.						

Resolution: Approved.

### Agendum –7/09/19: Miscellaneous.

1. Reporting of Change of Ph.D. thesis title of the following candidates:

Sl. No.	Name	Department	Supervisor	Previous title	Modified title
1	Kartick Lal Bhowmik	Chemistry	Prof. R.K. Nath (Supervisor), and Dr. Biswajit Saha (Co- Supervisor).	Synthesis and Physical Characterization of Conducting Polymer Based Thin Films.	Synthesis, Characterization and Application of Conducting Polymer Based Films and Metal Oxide Nanocomposite.

**Resolution**: Resolved that the change of title be accepted.

2. Change of Ph.D. thesis title & Ph.D. Supervisor.

Sl.	Name	Department	Supervisor	Previous title	Modified title
No.					
1	Papri Das	Zoology	Prof. S. Banik, T.U.	Neuro- Secretory Components	Reproductive
	(Sengupta)			of the Central Nervous system	Physiology and
				in Top-Soil Endogeic	ecology of Ompok
				Earthworm, Pontoscolex	Pabda of Tripura,
				corethrurus Under Natural	India.
				and stress conditions.	

**Resolution**: Resolved that the change of title and supervisor be accepted.

3. Reporting of change of Ph.D. Supervisor and Co-Supervisor.

S1.	Name	Department	Supervisor	Co-supervisor	Date of Registration
No.					
1	Kakali Das	Computer	Dr. M.K.	Prof. B.K. De	08.11.2015
		Science &	Bhowmik		
		Engineering			

**Resolution**: Resolved that the change supervisor and co-supervisor be accepted.

## 4. To consider the names of external member of BPGS of different subjects of Faculty of Sciences:

**Resolution**: The names of the following external members of BPGS were approved.

S.l. No.	Department		External member
01.	Electronics & Communication Engineering	i)	Prof. Nikhil Ranjan Das, Institute of Radio Physics and Electronics, Sisir Mitra Bhavan, University College of Science & Technology, 92, Acharya P.C. Road, Kolkata-700009, W.B, India.
		ii)	Prof. Paramartha Dutta, Department of Computer & System Sciences, Siksha Bhavana, Visva Bharati, Santiniketan, W.B, India.
		iii)	<b>Dr. Rupaban Subadar</b> , Associate Professor, Department of Electronics & Communication Engineering, North Eastern Hill University, Shillong- 793022, India.
02.	Chemical & Polymer Engineering	i)	<b>Prof. Niranjan Karak</b> , Head, SAIC, Tezpur University, Tezpur- 784028, Assam, India.
		ii)	Prof. Prabirkumar Saha, Ex-Head, Department of Chemical Engineering, IIT Guwahati, Assam, India.
		iii)	<b>Prof. Abanti Sahoo</b> , Department of Chemical Engineering, National Institute of Technology Rourkela, Odisha, India.
03.	Material Science & Engineering	i)	<b>Prof. M. Ghanashyam Krishna</b> , School of Engineering Sciences and Technology, University of Hyderabad, Hyderabad- 500046, India.
		ii)	<b>Prof. Karabi Das</b> , Department of Metallurgical and Materials Engineering, IIT Kharagpur, Kharagpur- 721302, W.B, India.
		iii)	<b>Prof. Kalyan Mandal</b> , Department of Condensed Matter Physics and Materials Science, S.N. Bose National Center for Basic Sciences, JD Block Sector-III, Salt Lake City, W.B, Kolkata.
04.	Library & Information science	i)	<b>Prof. R.K. Nigurtinkhuma</b> , Department of Library & Information Science, Mizoram University, Aizwal, Mizoram, India.
		ii)	<b>Prof. Durga Sankar Rath</b> , Department of Library & Information Science, Vidya Sagar University, Midinapore,
		iii)	W.B, India. <b>Prof. M. Madhusudan</b> , Department of Library & Information Science, Delhi University, Delhi, India.

- 5. Letter of Prof. S.N. Karmakar, regarding RAC of Utsab Banerjee and Abhirup Bhawal. **Resolution**: Approved.
- 6. Letter of Prof. S.K. Sil, regarding approval of the proposed name of Dr. Timir Tripathi, NEHU, and Prof. Sharmila Sengupta, Institute of Biomedical Genomics at Kalyani in West Bengal to work as Co-Supervisor in the Department of Human Physiology.

**Resolution**: Approved in principle.

7. Letter of Prof. K.K. Kundu, Principal, Agartala Govt. Medical College regarding change of P.G. Guide in the Department of Otorhinolaryngology, AGMC & GBPH.

**Resolution**: Approved.

- 8. Letter from Suman Paul, for introducing new course structure in Tripura University. **Resolution**: Not Approved.
- 9. Letter of Department of Botany for approval of the name of other than RAC Expert.

**Resolution**: Approved.

(Professor S. Banik)
Chairman,
Board of Faculty of Studies
Tripura University

#### Copy to:

- 1. All Members of the Board of Faculty of Studies of Science. T.U......
- 2. The Dean, Faculty of Arts & Commerce, T.U.
- 3. Office of Dean, Faculty of Sciences, T.U.
- 4. Registrar, T,U.
- 5. Director, IQAC, T.U.
- 6. Controller of Examinations, T.U.
- 7. Director, CDC, T.U.
- 8. Chairman, Annual Report Committee for 2018-2019
- 9. All HOD/Faculty of Science, T.U.
- 10. Deputy Registrar (Academic), T.U.
- 11. P.S.to V.C for kind information of Hon'ble Vice-Chancellor, T.U.
- 12. Ph.D. Section, T.U.

(Professor S. Banik) Chairman,

Board of Faculty of Studies Tripura University