



## तेजपुर विश्वविद्यालय / TEZPUR UNIVERSITY

(संसद के अधिनियम द्वारा स्थापित केंद्रीय विश्वविद्यालय)  
(A Central University established by an Act of Parliament)

संकायाध्यक्ष का कार्यालय, शोध व विकास

OFFICE OF THE DEAN, RESEARCH & DEVELOPMENT

तेजपुर-784028 :: असम / TEZPUR-784028 :: ASSAM

OFFICE ORDER

Dated: 19/02/2019

On the recommendations of the Central Recommendation Committee, Research and Innovation Grant, Tezpur University, the Competent authority is pleased to sanction an amount of **Rs. 35,48,500/-** (Rupees Thirty five lakhs forty eight thousand five hundred) only against 78 numbers of research proposals submitted by students and research scholars of Tezpur University under the scheme 'Research and Innovation grant', Tezpur University (See **Annexure-I**). Details School wise break-up of sanctioned grant is as under.

School	Number of proposals	Amount sanctioned (Rs.)
School of Engineering	45	16,63,500.00
School of Humanities	02	1,10,000.00
School of Sciences	31	17,75,000.00
<b>Total</b>	<b>78</b>	<b>35,48,500.00</b>

This sanction has been issued vide Sanction order **No. TU/Fin/R/18-19/339 dated 12/02/2019**.

### Terms and conditions:

1. Acceptance of the grant should be submitted to the Dean, R&D office within seven (07) days from the date of issue of this order through the Supervisor/Mentor/HoD.
2. The sanctioned grant is to be utilized on or before **31/03/2019**.
3. The proposal for expenditure is to be submitted through the Supervisor/Mentor/HoD well in advance from the last date.
4. Prior approval/sanction is to be obtained from the competent authority for any kind of expenditure/advance.
5. For travel, 10% of the total grant sanctioned for each proposal is admissible under school of Engineering and School of Sciences **and** 30% in case of School of Humanities and Social Sciences.
6. At the end of the project, the students/research scholars are required to submit a progress report/project completion report along with UC/SE to the Dean of concerned school through the mentor.

Sd/-

Dean, R&D (i/c)  
Tezpur University

Encl. Annexure-I.

Memo No. DoRD/RIG/10-73/ **1362-A**  
Copy for information and necessary action to:

Date: **19/02/2019**

1. Pro Vice-Chancellor, Tezpur University.
2. All Deans, Tezpur University.
3. All Heads of Teaching Departments, Tezpur University with a request to inform the concerned students/research scholars under his/her Department.
4. Registrar, Tezpur University.
5. Finance Officer, Tezpur University.
6. Controller of Examinations, Tezpur University.
7. Webmaster, Tezpur University with a request to upload the above Order in the Homepage of University website at the earliest.
8. Secretary to the Vice-Chancellor, Tezpur University, for kind information of the Vice-Chancellor.
9. Concerned File.

*N.S. Galam*  
Dean, R&D (i/c)  
Tezpur University  
19.2.2019

(Office Order for circulation through e-mail and website)

**Office of the Dean, Research and Development**  
**Tezpur University**

List of selected Students /Research Scholars for Research & Innovation Grant (2018-19)

**i. School of Engineering:**

Sl No.	Name of the Applicant	Department	Title of the project	Duration (in month)	Approved amount (Rs.)
1.	Hritisha Sharma	ECE	Design of a smart wheel chair for easy mobility of handicap people.	12	40000
2.	Sanjoy Sinha	ECE	Single Phase to Three Phase Conversion using Space Vector Modulation	12	40000
3.	Nabajyoti Bania	ECE	Design and implementation of a Single Phase, cascaded Multilevel Inverter with SPWM pulse generation method.	12	40000
4.	1.Tanaya Das, 2. Dhruvajyoti Sut	ECE	A Hazardous Gas Sensing Mobile Robot for Military Applications	6	35000
5.	Prastuti Shivam	ECE	Development of A Cost Effective Hand based on EMG to Finger Kinematics Estimation.	12	55000
6.	Himanshu Chowdhury	ECE	Gold coated MoS <sub>2</sub> enhancement SERS substrate	06	30000
7.	K. Shalu Devi	ECE	Development of Carbon nanotube Field Effect Transition based biosensors (CNT-BIOFETs) using ECD method for Bioelectronics applications.	12	55000
8.	Rewrewa Narzary	ECE	Fabrication and optimization of Si-ZnO-ZnMgO heterojunction solar cell	12	55000
9.	Palash Phukan	ECE	Fabrication and characterization of graphene based ultraviolet photodetectors	12	50000
10.	Jagat Das	ECE	Fabrication and characterization of low cost water splitting device using iron electrode.	12	50000
11.	Masuma Akhtar	ECE	Design and implementation of hybrid aquaponics system	12	50000
12	Satybrat Malla Bujar Baruah	ECE	Drowsiness detection System for Vehicles	12	50000
13.	1.Bishal Borah 2.Hriday jyoti Borkakoti 3.Bhaskar Jyoti Dutta	ECE	Low cost GSM based Medical Diagnostic System for Rural Areas.	12	50000

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14.	Santanu Phukan	ECE	Design and Development of Robotic hand to perform kitchen aid.	12	24000
15.	Arjuara Begum	FET	Cold plasma pretreated hot air and foam mat drying of pineapples puree : an innovative approach for product development	12	45000
16.	Subham Rohilla	FET	Development of canned tamarillo puree and enhancing its bioavailability	10	45000
17.	Abhinash Jha	FET	Nanocapsulation of bioactive compounds extracted from Haritaki using combination of biopolymeric materials	12	40000
18.	Urbashi Neog	FET	Microwave extraction of anti oxidant phytochemical compounds from peel, pulp, and leaves of Nora Bogri.	12	40000
19.	M. Abdullah Bareen	FET	Design and development of UV assisted mixed mode solar dryer for drying of Agro-Products	12	40000
20.	Kumudhini Akasapau	FET	Process standardization for development of iron fortified rice using cold plasma processing for anemia eradication	12	30000
21.	Shangufta Rizwana	FET	Mobile app based food for consumer level diet planning by diabetic patients based on glycaemic index	8	38000
22.	Sanjukta Das	FET	Innovative processes technology for canned rasogolla	8	30000
23.	Joydev Roy	FET	Development and characterization of starch-based heat and electricity conducting gels and films for food application.	12	32000
24	1.Sormistha R. Saikia 2.Juhi Choudhuary	FET	Development of value added products from Eryngium foetidum	6	25000
25	Ayan Bhattacharjee Devesh Kumar	FET	Development of de-oiled soya flour based snacks and evaluation of its shelf life in different packaging conditions.	6	25000
26	1.Dipankar Baruah 2.Jahnu Bora	FET	Development of non thermal process to enhance the shelf life of endogenous rice beer of North East India	12	20000
27	Subhakshi Boruah	EE	Development of IoT enabled wireless band for real time ECG monitoring	12	24000
28.	1.Ruchismita Bhowmik 2.Priyanshu Das 3.Debanita Das	EE	Investigation of Chaos in a fractional order models of Some communicable and hereditary diseases and design of controller to stabilize chaotic dynamics in them	10	45000
29.	1.Mrigakshee Chakravarty 2.Baishali Sonowal	EE	IoT based Hybrid power generation and management	12	25000
30	Govind Jangid	EE	Hand Grip pressure driven portable mobile charger	6	23000

*S.S. Das*

31.	Anindita Sharma	ME	Determination of moisture loss in tea leaves during withering in a laboratory experimental set-up with intervention of renewable energy.	12	55000
32	Sanjib Gogoi	ME	Processing and testing of an innovative material	12	50000
33.	1.Sumit Bhowmick 2.Sanjib Gogoi	ME	Design and Fabrication of multipurpose high temperature deformation/creep testing set up	12	45000
34.	1.Raktim Jyoti 2.Barpatra Gohain	ME	Design and performance evaluation of an improve biomass cook stove	7	40000
35.	1.Mousam Das 2.Subhankar Maitra 3.Kunal Krishna	ME	Design and development of powerless water pump.	10	20000
36.	1.Shahana Shehnaz Begum, 2.Harish Jangid 3.Asish Priyam Goswami, 4.Tikendrajit Doley.	ME	Design and development of a low cost solar thermal contaminated water treatment experimental set up.	7	25000
37.	1.Dikshita Nath 2.Danish Ansar 3.Biswajit Das	ME	Experimental Analysis of Solar Water Heater with Compound Parabolic Concentric Collector	10	22000
38.	1.Biswajit Sutradhar 2.Dibyajyoti Das 3.Nabarun Barman	ME	Design and fabrication of cost effective novel vermicomposting reactors. A smart and sustainable approach to facilitate urban Development	10	15000
39.	Priyam Goswami	ME	Design and performance evaluation of an efficient absorber plate for a solar air heater.	6	33000
40.	1.Pallab Medhi, 2.Partha Buragohain 3.Gaurav Patowary	ME	Design development of a low cost automated solar grass cutter	10	20000
41.	1.Nayanita Kalita 2.Raktim Ranjan Hazarika 3.Sandeep kr. Viswas	ME	Design and fabrication of a gyroscope -based washing machine with multi-axis rotation of the washing tub.	12	20000
42.	1.Moulick Deb, 2.Manish Koushik 3.Kul David Barman	ME	Development of a mechanism to minimize the impact force of a backpack	10	17500

*N.S. B. Barman*

43.	1.Lakhanlal 2.Syeda Mushrifah Zahan	Energy	Surface modified oxidation and reduction (ORR) reaction catalyst derived from Sulphur rich coal and rice straw waste for fuel cell application	6	57000
44.	Neelam Bora	Energy	Fabrication of super capacitor Electrode from Chemically activated biochar.	12	50000
45.	Chandan Kumar	Energy	Conversion of biomass to combustible gaseous fuel for power generation through the Gasification Process	7	55000

ii. School of Sciences:

Sl No.	Name of the Applicant	Department	Title of the project	Duration (in month)	Approved amount (Rs.)
1	Bijoy Sankar Boruah	Physics	Evanescent wave absorption base optical fiber sensor for detection of heavy metal ions in water.	12	48000
2	Ashamoni Neog	Physics	Microwave Assisted Greener Synthesis of Metal Nanoparticles From Renewable Solvent and Comparative Analysis With Conventional Approach.	12	48000
3	Mayuri Bora	Physics	Development of Hierarchical Assembly of magnetic nanoparticles in the application aspect of 'Thermal Memory Cell.'	12	50000
4	Priyanka Das	Physics	Smartphone-based optical sensor for monitoring of soil nutrients of agricultural farmlands.	12	50000
5	Sritam Biswas	Physics	Fabrication of highly reproducible SERS substrate using electrospinning technique.	12	55000
6	Diganta Hatibaruah	Physics	Smart phone based analytical platform for reliable estimation of mercury and arsenic level concentration in water.	12	55000
7	Sharma Manoj Suresh	MBBT	A study on the anti-cancer efficacy of Amorphophallus paeoniifolius (Dennst.) Nicolson tuber extract using breast cancer cell lines towards development of potent and safe alternative therapeutic strategy .	12	77000
8	Minhaz Ahmed	MBBT	Complete analysis of a newly prepared Ayurveda Diet Chart.	12	50000
9	Krishna Das	MBBT	Scientific validation of a traditional anti-diabetic formulation	12	50000
10	Munindra Basumatari	MBBT	Phytochemical mediated sensitization of NNK induced drug resistant Non small Cell Lung Cancer Cell lines	12	80000

*M.S. Das*

11	Muzamil Ahmad Rather	MBBT	Purification of bioactive molecules/fractions from selected medicinal plants and elucidation of mechanism of action pseudomonas aeruginosa biofilm formation	12	65000
12	Anindita Dutta	MBBT	Study of hypoxia induced proteome signatures in drug resistant breast cancer	12	65000
13	1.Bhabana Das 2.Aparup Patra	MBBT	Proteomics analysis of Indian red scorpion venom to explore the bio-pesticide and candidate drug molecules immunoprofiling of commercial scorpion antivenom.	12	80000
14	Shreaya Das	MBBT	Reproductive health hygiene of women	12	50000
15	Pitamber Baishya	MBBT	Hypoxia induced methylome signature in head and neck cancer.	12	60000
16	Manpreet Kaur	MBBT	Phytochemical mediated sensitization of carcinogen induced, drug resistant and current cells in head and neck cancer	12	55000
17	Toufikul Islham	MBBT	Development of a novel diagnostic tool from snake venom toxin for ex-vivo detection of breast cancer	12	70000
18	1.Nitisha Boro 2.Abhishek Chanda	MBBT	Proteomics analysis of venom composition of southern india Spectacted Cobra (Naja naja) to identify the pharmacologically active protins and peptides	12	70000
19	Nigar Sultana	MBBT	Microbial malady, molecular and genetic analysis of aromatic resin formation in agarwood tree (Aquilaria malaccensis)	12	55000
20	Kumar Kritartha Kaushik	MBBT	Isolation and Characterization of Probiotic bacteria gut and excreta of indigenous Pati Hanh (Anasplatyrhynchos domesticus) of Assam.	12	55000
21.	Ratan Chowdhury	EVS	Bio ethanol production from lignocellulosic waste by microorganisms isolated from the gut of earthworm	12	60000
22	Sudakhina Saikia	Chemical Sc.	Bare and supported metal oxide nanocatalyst for solvent free Friedel-Crafts acylation reaction.	12	55000
23	Raktim Abha Saikia	Chemical Sc.	Design and application of Hypervalent Iodine reagents for one-pot, metal free synthesis and functionalization of heterocycles.	12	55000
24	Jonali Das	Chemical Sc.	Asymmetric Synthesis of Enantiopure 2,3-Dihydrobenzofuranyl Glycines and related non -proteinogenetic $\alpha$ -Amino acids.	12	55000
25	Rituraj Das	Chemical Sc.	Transition metal assisted detection of fluoride in aqueous medium using potential heteroditopic ligands	12	50000
26	Abhisek Borborah	Chemical Sc.	Development of one dimensional (1D) nanoarchitectures by co - assembly of perylenetetracarboxylates and their application towards vapour sensing and portion conduction.	12	50000

*Dr. S. S. S. S.*

27.	Chiranjita Goswami	Chemical Sc.	Designing bifunctional CuO <sub>x</sub> - CeO <sub>2</sub> nano-electrocatalyst for oxygen reduction and oxygen evolution reaction.	12	50000
28.	Manash Jyoti Baruah	Chemical Sc.	Design of Low-cost Materials for Hydrogen Fuel Production from Water-A Route towards Clean Energy.	12	50000
29.	Anurag Dutta	Chemical Sc.	Design and application of "on-water" and "Chromatography-free" annulation methodologies towards synthesis of bio-active N-heterocycles from benzylidene/alkylidene precursors	12	50000
30.	Rakhee Saikia	Chemical Sc.	Innovation of non-conventional cyanating agents in the efficient synthesis of aromatic/heteroaromatic benzonitriles: a one-pot gateway to the formation of N-heterocycles.	12	50000
31.	Debabrat Pathak	Chemical Sc.	Porous organic material synthesis and its application in trapping, sensing and catalysis.	12	50000

### iii. School of Humanities & Social Science

Sl No.	Name of the Applicant	Department	Title of the project	Duration (in month)	Approved amount (Rs.)
1.	Richa Chattapadhyay	MCJ	Ethnographic study on mask traditions of Northeast India as a communicative medium	12	55000
2.	Harshwardhan Sharma	MCJ	Cartoons in political communication: A study of "So Sorry Politicians" broadcast at India Today News Channel.	12	55000

*N.S. Islam*

Dean, Research and Development (i/c)  
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19.2.2019