Report on Inaugural Session for Joint Industry Academia Course on "Entrepreneurship and Valorization of Bamboo"



The event on Inaugural Session for Joint Industry Academia Corse on "Entrepreneurship and Valorization of Bamboo", jointly organized by the Internal Quality Assurance Cell (IQAC), Tripura University; Dattopant Thengadi Employment Generation Resource Centre (DTEDRC), Tripura University; and G-Cube, Agartala, took place in the conference hall on the first floor of the Central Library at Tripura University. It began at 10:30 AM on September 11th, 2024. The session opened with the welcoming of guests, including the Vice-Chancellor of Tripura University, Prof. Ganga Prasad Prasain; Registrar Dr. Deepak Sharma, Tripura University; Prof. Shaon Ray Chaudhuri, Director of IQAC, Tripura University; Mr. Santanu Banik, CEO of G-Cube Agartala; Shri Annada Shankar Panigrahi, activist and economic thinker; and Shri Ratan Kumar Das, CA, State Coordinator of Swabolombi Bharat. Faculty members and many students were also present at the event.

The event started with the felicitation of the guests, followed by an address by the Registrar, who talked about the importance of skill development for youth, entrepreneurship, and the roles of job seekers and providers. He discussed the five-day training program that focused on skill development, including three days at Tripura University, and highlighted how participants benefited from acquiring new skills. He also spoke about Prof. Shaon Ray Chaudhuri and her team's work in planning and executing innovative courses.

The Vice-Chancellor, began by thanking everyone and talked about India's status as a developing country and its struggle to compete with other nations. He discussed the challenges faced by northeastern states like Nagaland and Manipur, including social problems and the limited availability of private and public sector jobs. He emphasized the need for more industries to generate employment and properly utilize resources, especially for the benefit of farmers. He also spoke about the importance of entrepreneurship then the job and noted that this was the first course of its kind, aimed at fostering industry-academia collaboration to tackle these challenges effectively.

Mr. Santanu Banik, CEO of G-Cube, addressed the audience about the general course structure, explaining that it included two days for demonstrations and three days for field visits focused on bamboo growth and the selection of quality bamboo. He praised the concept of entrepreneurship and outlined the importance of report writing as part of the course. Mr. Banik highlighted the connections between the training and the bamboo trade, emphasizing why entrepreneurship should be embraced. He spoke about the need to develop human resources and stated that unemployment was often due to one's own mindset. He encouraged participants to use the skills gained during the training to advance in the future and emphasized the importance of growing together.

Shri Annada Shankar Panigrahi addressed the audience about traditional methods of skill development and urged everyone to think and dream big, emphasizing that without such aspirations, the country could not progress. He spoke about the importance of adding value to bamboo through skill development and highlighted the potential of bamboo-based industries. He also discussed the Sutradhar community, who primarily worked with bamboo, and stressed the need to enhance their skills to improve their livelihoods and contribute to broader economic development.

Shri Ratan Kumar Das addressed the audience about the goal of achieving "Vikshit Bharat" (Developed India) by 2047. He urged the youth to come forward and engage in entrepreneurship, emphasizing the importance of displaying the skills from different districts and showcasing them to the world. He also noted that various schemes were available at that time to address unemployment and encouraged participants to take advantage of these opportunities.

Prof. Shaon Ray Choudhuri, Director of IQAC, addressed the audience regarding academic initiatives, noting that Tripura University had taken the initiative to launch its first five-day training course. She mentioned that Tripura University had taken care of the transportation for participants, enabling them to attend and gain skills. She highlighted that G-Cube not only provided skill development but also offered ongoing support, which made a significant difference. She talked about providing technology to those in need, including agarose-based valorization and conversion to production. Prof. Choudhuri also discussed a six-month training program for Ph.D. students at G-Cube, which included digital marketing and skill courses designed to groom youth for better opportunities. Lastly, she thanked the volunteers for offering the course through the Department of Microbiology and expressed her gratitude to G-Cube, the library, the IQAC team, and the Microbial Technology Lab team.



















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Attendance sheet

Sl. No.	Name	Designation & Department	Signature
7	Magdaluna Basuah	Microbiology (1stem)	Romeh 11.9.24
2.	Anpan Maily	Microbiology (18t sem)	Areforn Mily 11.9.2024
3.	Indragit Bera	Microbiology (1st sem)	B. Bera 11.09.24
4	Sanjana Dhan	Microbio logy (1st sem)	Sho7. 11.09.24
5.	Liberi S. Lotha	Microbiology (1st sem)	# 11/01/24
6.	Amrita Sinha	Hicrobiology (1stsan)	Amerita Sinha 11/09/2
7.	Paridri Noatia	Microbiology (1st sem)	Paridri Noatia 11.09.202
8	Pushan Chattersee	Micro biology (1st Sem)	PusherCuddell 11. 9. 2024
9.	Bholanath Debnath	Microbiology (14 sem)	Bholanath Schnath
10.	Huiday Biswas	Microbiology (1nt som)	Pholanath Schuss Houday Bixuss 11.07.24
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13.	Igal Hazarika	Microbiology (1st Sem)	Jugar
14.	Dikahita Kalita	Microbiology (1st sem)	Dikohita Kalita
15	Anchana kalita	Micyolódogy (19tzem)	Anchene kalita
14	Milton Kalai	Microbiology (1stsem)	Milton Kalau
15	Rakhal Debbauma	Microbiology (15t sem)	Rakhal Debbarma
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44	Sudip Rumar paw	Micro-biology (1st sem)	Sudip W1. Paul
18.	Subhrajit Choudhury.	Microbiology (1st dem)	Subhrafit Choulherry.
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20.	Anpan Raut	Microbiology (1st Sem)	Anpan Raul.

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23	SK WASIM AHMED	Microbioly	8<11/9/24
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25	Sanjula Bertradur	Microbiology (3rd den)	danjulia 11/9/29.
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31.	Swarna Kamal Das	M.SC Microbiology (3rd Sem)	Suarna Kamal Das 11/09/2024

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35.	Ankita Das	3rd sem Mse Michobiology	11/09/24
36.	Sampili Debbarma	3rd sem Msc. Michobiology 3°d sem	Sampili Debharma 11/09/24 Deptanu Reany
37.	Diptanu Reang	Msc. Microbiology 30d Jem- Msc. Microbiology	11/09/24
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35.	Sounita Podden	M. Sc. Michobialogy 3rd sem	No 0
40.	Nayami Debbarma	Mosc Microbiology	11/09/24
41.	Tanya Tapuna	Misc Microbiology	Tany Trigum
42.	Sujata Rudnapal	M. Sc. Microbiology 3rd Sem	11/09/2024

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45.	Ankita Nandi	Msc in Microbiorogy (Istsem)	Drawl' 11/06/2024
46.	Anindita Barvah	M.sc. in Microbiology (1st sem)	37 mindita Baruh
47.	Michelle Andrey Rymba	2. 2.1 (200)	11/ 9/24.
Yв.	Blombej goti Das	Msc Mindsiology (sod su)	01 -
49.	Sadon singh Motson	M.sc. 3rdsemester. Microbiology	Cott of ser
50.	Pripul Debborna	MSC Microbiology (31 sem)	Dipus 11/09/2024
51	Sami Ksha Kumari	MSC Microbiology (3 id sem	
52.		Msc. mícon biology (30)	11/9/24 (11/9/24
53	Colongo Samal	Msc. mícon biology (30) Research Scholer Microbiology	110 2t

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55	Are Parken	Departure of ministratory	11/9/24
56.	Josh She	140/	Jan. m

A report on the training cum exposure course provided by G Cube, Agartala in collaboration with Dattopant Thengadi Employment Generating Resource Centre (DTEGRC), Tripura University on the topic:

"Entrepreneurship and Valorization of Bamboo"



Submitted by:

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Date: 25/09/24

ACKNOWLEDGEMENT

Firstly, I would like to extend my heartfelt gratitude to Prof. Shaon Ray Chaudhuri, and Dattapant Thengadi Employment Generation Resource Centre (DTEGRC), Tripura University, for providing me with this invaluable opportunity.

I would also like to express my appreciation to G Cube Foundation and its entire management team, their collaboration and willingness to share their knowledge and experiences have been invaluable to me., their constructive criticism and input have helped me in learning new perspectives and clarify my knowledge on various aspects.

Rashmi Bhuyan

Dattapant Thengadi Employment Generation Resource Centre (DTEGRC), Tripura University in collaboration with G Cube Foundation, Agartala, has opened new opportunities for students to learn about entrepreneurship and valorization of waste products in their industrial training cum exposure program under the title, "Entrepreneurship and Valorization of Bamboo". Around 40 students of Microbiology Department of Tripura University joined in this training program dividing themselves into two groups. The first group consisted of 20 students who attended the course on 18/09/24, and 19/09/24 on the industrial grounds for industrial training while on 23/09/24 with the addition of the students of the second group, who attended the training program on 20/09/24 and 21/09/24, went for a field visit to the site of procurement of raw materials. And then the whole team (both first and second group) attended an interactive session on entrepreneurship held in the Dattapant Thengadi Employment Generation Resource Centre (DTEGRC), Tripura University. This report holds a summary of the events of the training cum exposure program in addition to the insight of the knowledge gained and some future prospects.

INTRODUCTION:

G Cube Sticks Private Limited (Innovative Solutions for Sustainable Living) is situated in Bamboo Park Main Rd, R.K. Nagar, Industrial Area, Agartala, Tripura. It is a venture under G Cube Groups, whose headquarter is situated in Coimbatore, Tamil Nadu. Its key promoter and Managing Director (MD) is a Canada based NRI, Mr. Gopal A. The institute is situated over 3 acre land area at TIDC Bamboo Park and was inaugurated in September, 2023 by the honorable Chief Minister of Tripura and it became functional in November, 2023.

The objectives the industry works on:

- Contributing to reducing India's import dependency in bamboo round sticks.
- Promote bamboo as alternative single use plastic.
- Promote bamboo as an alternative to coal.
- Generate local employment in Tripura.

The G Cube groups, here in Agartala, Tripura has three main parts:

- G Cube Sticks Private Limited
- G Cube Ventures Private Limited
- G Cube Foundation

The industry as a whole is mainly divided into two units where,

- 1. Round bamboo filament making unit (G Cube Sticks) creates round bamboo filaments for various purposes like agarbatti sticks, ice-cream sticks, etc.
- 2. G Cube Ventures valorize the waste materials of G Cube Sticks and create bamboo briquette, pellet, and fine powders.

G Cube holds a manpower of over 100 people and still has an opportunity for more than 250 people. They have a team of supervisors at each section and team of technicians for maintenance and have first-aid section for the employees, in-house facility, canteen, fire

fighting facility as per NBC, locker for workers, toilet facilities and have ISO and GMP undergoing.

G Cube has a tie up with ITC- Mangaldeep.

1st Day of program:



The day started with an interactive session with Mr. Santanu Banik, General Manager, G Cube, Agartala. The session included an introduction to the G Cube Sticks Private Limited and bamboo varieties available in Tripura. His presentation also contained a lot of information about traditional and modern uses of bamboo and about mechanized bamboo sticks, briquettes, pellets, bamboo fine powders and activated charcoal from bamboo. He also provided us with an extensive information about the National Awardees of Tripura who gained recognition through their bamboo and cane handicrafts.

The second session of the day was led by Mr. A. Tebby, who gave us a tour of the Round bamboo filament making unit while also explaining how the machines work in the industry. The steps of the manufacturing process as explained are given below:

1. Selection of bamboo

The industry uses two species of bamboo for the stick making, they are *Bambusa tulda*, local name, Mrittinga (Tripura) and *Bambusa cacharensis*, local name, Betu/ Bom (Tripura). The quality parameters to be checked are: a) Length; b) Thickness of the bamboo and c) Hardness of the bamboo.

2. Cross-cutting

The selected bamboos are cut into 42 inches long cylindrical shapes and then segregated and kept in three different trolleys:

- Yellow trolley: holds the bottom portion of bamboo
- Green trolley: holds the mid-portion of bamboo and provides the best yield
- Blue trolley: holds the top section of the bamboo

3. Splitting

Input: 42 inches cylindrical bamboo pieces

Output: Splits, whose width ranges from 18-22 mm.

The splits are made using splitting blades

4. Knot removing

Input: Splits

Output: Slivers, with the absence of knots

Slivers comes in two parts:

- Green part is called the first layer
- White part is called the second layer

5. Round stick making

Input: Sliver

Output: Filaments (according to size-wise requirement)

6. Pre-drying filament segregation

Screening out of good filaments according size, length, etc. of the filaments. Sulphur treatment is done.

7. Drying

Drying is done in the drying chambers and moisture is removed till 0% as there is about 5% atmospheric moisture which is allowed.

8. Bundling

The filaments are bundled together (weight-wise)

9. Sizing

The bundles of filaments are cut to the required size.

10. Polishing

The polishing is done by simple abrasion using sand and the surface is made smooth by adding wax.

11. Preservation

While polishing, boric powder is used for preservation.

12. Short stick remover

Most waste removal is done in this step and every filament without the required diameter is removed. For this purpose blower is used.

13. Jig sorting

Through jig sorting the filaments are divided into Grade A and Grade B products. The ones with the perfect required diameter and length with 0.02 mm + are regarded as Grade A products and the rest are regarded as Grade B.

14. Quality checking FG

The quality of the filaments are checked before dispatch to the customers.

15. Packaging

The filaments after the dispatch clearance are packed and they are ready for dispatch.

2nd day of the program:

The second day of the industrial program included hands-on training and teaching of how the manufacturing is actually done.

1. After cross-cutting the segregation of 42 inches cylindrical bamboo pieces are done according to the diameter of the bamboo pieces. The splicing blades by which the splits

- are made consists of 6-14 blades which can be changed according to needs. The width of splits are to be within the range of 18-22 mm.
- 2. When the slivers are made, the blades can be adjusted according to the thickness of the splits. Vernier caliper is used to measure the thickness and width of the slivers. A moisture meter is used to measure the moisture of the slivers and the moisture is checked in the 2nd layer. After the slivers are made, the following data are noted:
 - 1st layer thickness
 - 2nd layer thickness
 - Width of the slivers
 - Moisture content
 - Visible nodes

The above recorded data are taken in average and are noted on an hourly basis in order to produce more efficient results.

- 3. From the slivers, filaments are made according to the required sizes
- 4. During the polishing, for the first hour the filaments are just ran in the machine and then sequentially, sand, wax and boric acid is added with an interval of one hour each.
- 5. During the quality checking, randomly some filaments are picked and checked for the required length, size, etc. after that if the maximum filaments pass the quality check then the bundles are passed to go through packaging.

3rd Day:





On the third day of the industrial visit, the whole team of Microbiology department of Tripura University (i.e., both the first and the second group), together went to the site of raw materials procurement in Baramura, Hawaibari, Tripura. There we learnt that battery saw machines are used to cut the bamboo pieces and they are cut in such a way that the cut is nowhere near the knots, or else while cross-cutting and spliting the bamboo pieces the machines used may get damaged or more waste materials may be produced. The bamboos are weighted before they are transported to the industry.

4th Day:

The fourth day of the training cum exposure program was held on 24th of September, 2024, in the Dattapant Thengadi Employment Generation Resource Centre (DTEGRC), Tripura University. It was an interactive session with Mr. Santanu Banik, the General Manager of G Cube, Agartala, who himself is an entrepreneur and has an industrial setup consultancy farm. The session included a very insightful exposure to the idea of entrepreneurship and with it included the interaction between the speaker and the audience on what are the aspects of entrepreneurship that has been or will be the stopping factor from moving onto the idea of creating and doing the business of our own. The aspects mostly included, risk of losing funds, investment problems, fear of competition in the market, problems in the process of gaining government recognition, lack of knowledge regarding the field of interest, etc.

1. Mr. Banik provided us with an insight on the types of business ideas, i.e., saleable idea, passionate idea, innovative idea, problem solving ideas, small or big market idea, there may be one or multiple ideas together, the types of business where there is one sole founder or there may be co-founders. He introduced and taught us the meaning and significance of the 7 P's of marketing, which are: a) product; b) place; c) price; d) promotion; e) physical; f) people; g) process. He gave us an insight on the different market channels, which are of two types a) B2C and b) B2B; and the different financial aspects of an enterprise, which might include angel investors, venture capital, etc. after that, there was a discussion about the types of loan which can the most helpful aspect in the building of an entrepreneur. Mr. Banik then provided us with the information about E-commerce marketing, which included what E-commerce is and tips for it, which may incorporate presentation and catalogue guide, cancellation policy, shipping charges, mechanism-by own or service provider, etc.

Last but not the least, the resource person taught us the calculations which are important in running a successful business entreprise.

CONCLUSION:

The training cum exposure program, titled with, "Entrepreneurship and Valorization of Bamboo" provided us with an invaluable knowledge about how an enterprise and an industry functions and insightful idea on what are the aspects of the unparalleled world of entrepreneurship and how to tackle the problems which may be incorporated with it. In today's world the need of job providers is much more than job seekers and programs like these nurture the young minds on the perspectives of entrepreneurship. In addition to all these we also learnt what a circular business model is and had the opportunity of witnessing a circular business in the form of G Cube groups where, its unit G Cube Ventures valorizes the waste produced and make different products like briquettes, pellets, and fine powder, and in turn converting the entire industrial setup into an 0 wastage factory.

APPLICATIONS OF BAMBOO

The use of bamboo has been going on from times immemorial. In the recent years, bamboo has found its applications in the industrial and the field of engineering, as well as non-engineering fields. The use of bamboo is now not only limited in the purpose of craftsmanship and housing applications. Through research and development, after bamboo can be used in various other purposes such as in medicines, for phytoremediation purposes, as bio-fuel, in weaving fabrics, in making bicycles, etc.

Certain such applications are mentioned below:

1. Elastomer-based bamboo composite

The use of bamboo fibers in the manufacture of elastomer composites has led to a very feasible alternative filler reinforcement. This incorporation provides the composites with very good mechanical performance, fatigue strength, creep resistance over the particulate-filled matrix, enhance puncture resistance. Research shows that the bonding agents like silane, phenol, formaldehyde and hexamethylenetetramine play a very major role in incorporation of adhesion between bamboo fibers and elastomer-polymer matrix(Akinlabi et al., 2017).

2. Bamboo in fabric

Bamboo is easy to weave into fabric with high thread counts, and the resulting textiles are often thinner than their cotton counterparts. These strands are very strong but at the same time very thin. They possess very good tensile strength. These are used in bedding, underwear, t-shirts, socks, blankets, towels, and many other textile.

3. Thermoset-based bamboo

As plastic is used in thermoset composites, in the similar manner bamboo can also be used. Various tests have been done on bamboo-based thermosets such as tensile and flexural properties, dielectric properties, and fracture properties, etc. from the tests it can be concluded that bamboo based composites is a promising materials to be applied in the global marine sector(Akinlabi et al., 2017).

4. Use of bamboo in ecosystem

- Bamboo can sequester and capture atmospheric carbon within its lifespan, which can offset CO₂ emissions by storing high concentration of CO₂ in the hollow parts of bamboo.
- Bamboos are known to be successful plants at absorbing wastewater from agriculture, industry, animal breeding, and pollution.
- Bamboos have phytoremedian potential.

5. Use of bamboo in medicines

- In China, ingredients from the black bamboo shoot help treat kidney diseases.
- Roots and leaves, which normally are treated as wastes, have been used to treat venereal diseases and cancer.
- In Indonesia, water from culm is used to treat diseases of the bone effectively.

6. Bamboo vinegar

The bamboo vinegar is a by-product of bamboo-charcoal production. It is used for skin infections and as an antimicrobial, such as in bamboo vinegar spray or soap and also in the cosmetic industry. It is also used as fertilizers which promotes the growth of plants and protects them from damaging microorganisms(Akinlabi et al., 2017).

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Report on

"Valedictory Session of the Industry Offer Course"

Tripura University organized the "Valedictory Session of the Industry Offer Course" on September 25, 2024, at 4:30 PM in the seminar hall, 1st floor of the University Guest House. The session was attended by the Vice Chancellor, Prof. Ganga Prasad Prasain; Registrar, Dr. Deepak Sharma; Mr. Santanu Banik from G Cube Foundation, Agartala; IQAC Director, Prof. Shaon Ray Chaudhuri; Dattopant Thengadi Employment Generation Resource Centre (DTEGRCs) members; the Microbial Technology group; students of the course, and journalism students.

Vice Chancellor Prof. Ganga Prasad Prasain addressed the gathering and emphasized the importance of entrepreneurship in Tripura. He highlighted the diversity of products from the state and their high demand abroad. He also spoke about the significance of bamboo products in the northeastern region, particularly in Assam and Arunachal Pradesh, mentioning the variety and quality of bamboo available. Prof. Prasain acknowledged G Cube Foundation's contribution to promoting bamboo products and expressed his gratitude to Prof. Shaon Ray Chaudhuri for her initiative. He concluded by congratulating the students for their achievements during the five-day course.

Registrar Dr. Deepak Sharma thanked everyone involved and described the event as a pilot project, expressing hope for future developments. He spoke about India's vision of becoming a prosperous nation (Samrit Bharat) and how initiatives like this contribute to that dream by providing students with valuable knowledge, skills, and employment opportunities. He discussed the economic challenges faced by the youth and the role of entrepreneurship in Tripura. And also on the impact of colonialism on local handicrafts and praised the students for their participation, encouraging them to share their experiences. He concluded by thanking all attendees.

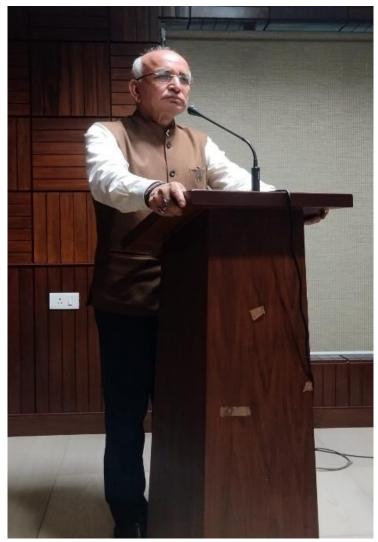
Mr. Santanu Banik shared how the collaboration between Tripura University and G Cube Foundation began, marking the first-ever bamboo entrepreneurship initiative in the region. He thanked both institutions for their efforts in promoting bamboo-based socio-economic development and stressed the importance of practical learning, overcoming fear, and collaboration in entrepreneurship.

The session also included the release of a newspaper by journalism students, followed by a certificate distribution ceremony.

Finally, Prof. Shaon Ray Chaudhuri delivered the vote of thanks, expressing her appreciation to all the teams involved, including G Cube Foundation, the Vice Chancellor, and the Registrar for their support. She also thanked Mr. Subrata Nandi and the IQAC team for ensuring the smooth execution of the event. Ans also congratulated the first batch of entrepreneurship students, announcing that 29 out of 39 students had successfully completed the course.



























Attendance from Valadictory Seesion of the 1st Industry Academia course on "Entrepreneurable and Valarisation of Bamboo" hold on 25th September, 2024 at 4:30 P.M at Confessance Hall, Course House.

SLNO.	Name	Depentment	Date and signature	contact No.
1.	Arepan Mily	Microbiology	Archan Maity 25.09.2024	7872825434
1433	Subrata Mandi Do Tharmendra duby	SI, Tripure Undrossity	5 Si	क्षत्रकार्भाष
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4.	Goldy Harak.	Hicrobidogy	Goldy Mr. 25.09.24	7629008678
5.	Jugal Hazomiker	Microbiology	25-09-24	9101280984
G. ⊈₽.	Milton Kalai Dikohita Kalita.	Michobiology	25-09-24 Milton hadai 25.09.24	9863218250
7.	Digohita Kalita	Microbiology	Ditshitalkalita.	75 75 940390
8.	Anushka Chalterijee	Microbiology	25.09.24	
	Santana Bank	G.M-GCube	Dijel 25.09.24	8257897218
	Dr. Visher Bandhu	Tribura university	Shar 25/09/24	9862994547 957535/002
	Bholanath sebnath Swarma Kamul Sas	Microbiology Microbiology	Bholanath Dobnath 25/09/24	9366179929
	Pushparghya Deb	Microbiology	25/09/24	8787791414
	Amrita Sinha		Jeb 25107/24	9863284400
16.	Punung Dey Naudini Majumder	Microbiology Microbiology	29/09/24	9436905114
16.	Naudini Irajumder	Aricrobiology	25,69(29	8720934291
	Sourita Poddur	Microbiology	25/09/24 25/09/24	6009420736
	Annesha Roy	Michobiology	125/03/24	6009371016
19.	Dhrubajyoli Das	Microbale	As 69/24 Stoutsejisti Das 25.09.24	9101949998
,		Microbalogy	Mondayoti Das	8597724120

SL. No.	Name	Department	Date and Synature	Gatact No
20	Sujata Rudrapas	Microbiology		9862348600
21,	10		25/09	
22.	Hnithas Deb	Man Communication and Journalism	Anannya Chouchung 25/9/29	9485003722
23.	Tanusnee	JMC		
24.	Tanusnee Chamarabouty	IME	Hritman OLD	8837359663
	Purba Sinha	JMC	- 25/09/24 Proposition 25/09/24	
25.	Swagata Char Chaknabordy	Mars Communication	Purbosinu 25/0/24	9862207525
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28.	Amar Dala Jamelia	JMC	Amer D. Du funtis	7629886219
29.	Amar Bijoy Jonatia	JMC	_ 1	
30.	Annita Nandi	nicológicology	Ana Bijoy Jut.	9863373 238
31	Sudip Kumar Paw	Microbiology	America Mario	8837236826
32	Horiday Binusar	Microbiology	Sady w. Pour	
33.	Arnob Mondal	Microchiolog	OXI IS O I I I I	9962245783
au		Microchiology	7 Luiday Birwan 25/09/24	8414933551
34.	Aspan Raul	Microbiology	Annah Mondal 25/09/24	9083556463.
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35.	Jaya Biswas	Microbiology	25/09/24 Jaya soiswax 25/09/29	
36.	Pushan Chatteriee	Microbiology		8014472450
37.	Moutrisha Majumder	Microbiology	Angham Chatter Jee	9874325984
38.	Industit Bena	Micro biology	25/9/24	7005930812
39.	Magdaluna Banuah		K. Bera	9832746074
		Microbiology	Warner .	
40	Sunjane Dhar	Mi vrobio logy	1 N 2 1	9395139776
41	Liberi 5 Lotha	Microbiology	A 25/01/29	9366120331
42.	Rashmi Bhuyan	3rd sem, Microbiology	@ asloglay	9233180802
43.	Bijayan Tripuza	3rd Sem, JMC	Roheyan 25-9-24	9707169744
44.	Chaitali Charda	Microbiology	Bijayan Bipura	6009213629
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