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IPR Jagoran...

"TUIPR Cell on its way to IPR Awakening"

Tezpur University Intellectual Property Rights Cell

A peep into the contents…

Contents Page No.

Our Acknowledgements …

We are grateful to

- Department for Promotion of Industry and Internal Trade (DPIIT), Govt. of India, for grants to carry out all our activities.
- GI Registry in Chennai for advice and involvement in our GI related work.
- DST-TIFAC for supporting and facilitating patent filing in Indian Patent office and abroad.
- NRDC for patent filling and technology transfer.
- CIPAM for collaborating in IP related activities.
- ASTEC for partially funding some of our activities.
- NEC for funding RITES-18.
- MSME-DI for collaborating in outreach activities.

The IPR Cell has a unique mandate as it has been operating in last three years broadly speaking in two major directions: IP management of home grown technologies and IP teaching. Outreach activities in collaboration with Government funding agencies have added an important dimension. One of the worth mentioning activities of this period was the organization of industry-academia meet and innovation exhibition of technologies developed in TU.

Amidst fervour and enthusiasm, IPR Cell celebrated 10th year of existence in University in 2019 through year-long activities. Right off the bat, we also celebrated the victory of student innovators winning GYTI (Gandhian Young Technological Innovation) awards for consecutive three years based on their applied patents. A number of research groups have been conferred with patent grants. The annual programs of innovative idea competition, IP quiz, IP Day lecture have received more popularity among students and research scholars in these years. Another significant move for TUIPR Cell was inducting University's own IP policy for providing directions to all persons and institution with regard to IPs of their creative endeavours.

Vice Chancellor's Desk

I would like to take this opportunity to congratulate TUIPR Cell for the successful completion of 10 years of its splendid journey. In this decade, the Cell has been working very hard for fostering a spirit of innovation & creativity among innovators of the University. A significant change has been observed in the perception of the University fraternity about protecting their intellectual outputs. IPRs applied from the University till date stand testimony to our commitment to bring the knowledge created within the University out for the Society for appropriate use. The MoA with NRDC is another remarkable step in the glorious journey of the TUIPR Cell.

TUIPR Cell is a small yet vibrant department and the real strength lies in its people. We are also very fortunate to have always received the unconditional support from different collaborators of Government agencies. I invite all of you to be a partner in our journey into the future, just as you have been a co-creator of this success story thus far.

The present issue of IPR Jagoran introduces you to the outstanding inventors of University and provides a brief overview of the brilliant technologies they are pursuing.

- Prof. V. K. Jain

IPR Cell Coordinator's reflections

The nation is at a crossroad with the new IP policy for achieving self-reliant India. The universities are important cradle of intellectual creation and innovation. Building a strong IP ecosystem that is accessible to researchers, faculties, students and also to grassroot innovators is a priority of Tezpur University. Formulation of IPR Policy of the University has been one of the significant steps towards creating and securing an IPR conscious ecosystem. The TUIPR Cell is sincerely involved in teaching IPRs at various levels for development of worthy human resource with added skills embedded with ethical values.

Over the past 10 years, TUIPR Cell has played a critical role in fostering innovation and IPR partnerships in the North- East region as a nodal centre. I can unequivocally, state that we have been able to fulfil our mandate to promote Technology and Innovation far exceeding all expectations. During these 10 years, our academic program, inventions and outreach have all expanded manifold to cater to all segments of the innovation ecosystem within the campus and outside. Our initiatives have received financial funding support from Tezpur University, DST-TIFAC and NRDC in this period. We will continue to adapt to the changing IPR landscape and pursuing new opportunities to catalyze that are of strategic importance for our country with special focus to the region.

Every issue of 'IPR Jagoran' celebrates the accomplishments of university inventors from innovative solutions addressing community. IPR Cell is delighted to be part of this amazing Journey of innovation.

- Prof. P. Deb

MoA with NRDC

In a landmark initiative for commercializing the home-grown technologies, Tezpur University has come in agreement with National Research Development Corporation (NRDC), an enterprise of the Department of Scientific & Industrial Research, Ministry of Science & Technology, Govt. of India, to develop fruitful collaborations with suitable industry partners and commercialise promising technologies developed in the campus. A Memorandum of Agreement has been signed in this regard on 02.06.2018 in the University between Tezpur University and NRDC in presence of key functionaries. Dr. Biren Das, Registrar, TU and Dr. H. Purushotham, CMD, NRDC signed the documents on behalf of their respective organisations. This initiative is believed to accelerate the process of rolling out of the home-grown technologies to the market, which will make them available to the society, beyond the university campus.

IPR Policy adopted for the University

In February 2018the IPR policy of Tezpur University has been approved and adopted in Tezpur University. Henceforth, the university has joined the rare league of institutions within the country, which has an institutional IPR Policy.

This TUIPR Policy provides directions to all persons and institutions associated with Tezpur University on processes to be followed by its faculty, staff, students, collaborators, funding agencies and their like, with regard to products of their creative endeavours, converting them into effective intellectual property (IP), transacting their generated IPRs in the course of knowledge transfer for commercialisation and societal growth. Tezpur University believes that efficient management of IPRs within its educational system will not only enhance the quality of the education and research, but will also ensure cohesive development of worthy human resource with added skills embedded with ethical values.

The TUIPR Policy further derives synergy from the Choice Based Credit Transfer Courses in IPR in which the students get exposed to the fundamentals of IPR and how it is used in the national and global context.

Our Team at TUIPR Cell

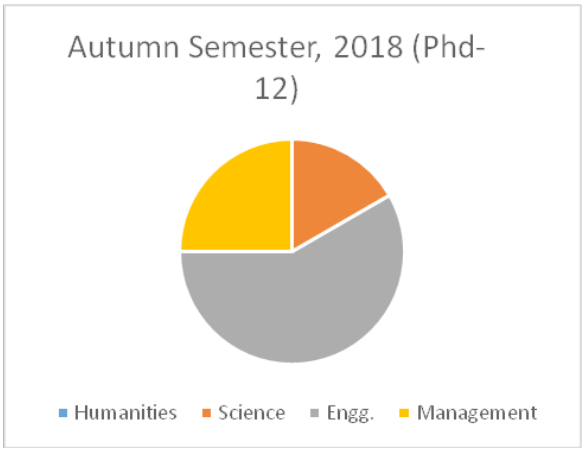
Prof. V. K. Jain
Chairman, TUIPR Cell

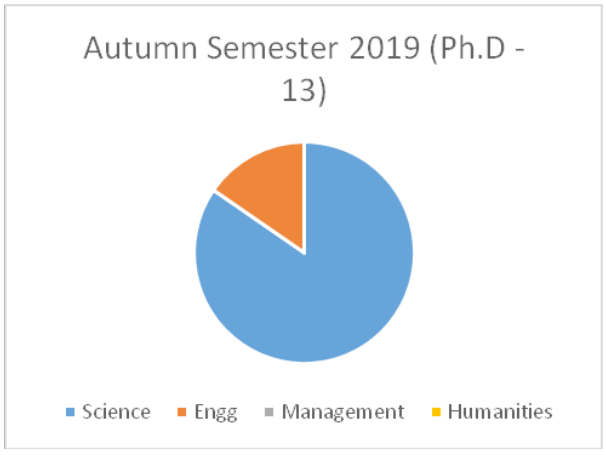
Prof. P. Deb
Coordinator TUIPR Cell

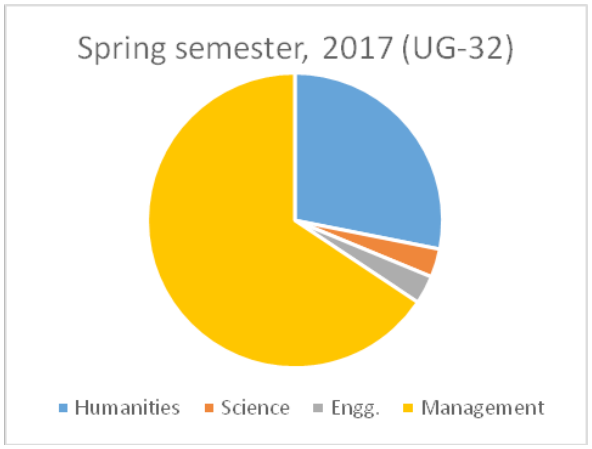
Dr. J. Borbora Saikia
Research Assistant, TUIPR cell

CBCT IPR for PhD students: IP750 Intellectual Propety Rights in Research and Beyond

A special IPR course for the PhD students was designed and offered in the autumn semester of 2013. This has opened a new dimension in our University System to facilitate a process for seamless integration, internalisation of IPR and good practices as the PhD students get initiated to their respective research topics. The students are being trained to conduct prior art searches, prepare patent landscapes and study patent documents so that they are able to better define their research problem and develop proper approaches to solve them without rediscovering the wheel.







Nayan Moni Kakoty and Lakhyajit Gohain, Department of ECE, School of Engineering, Tezpur have invented an EMG based Prosthetic hand Controller customized with a Bluetooth based Android Application for executing multiple grasp patterns.

AN EMG Based Prosthetic Hand Controller

Advantages of this invention are -

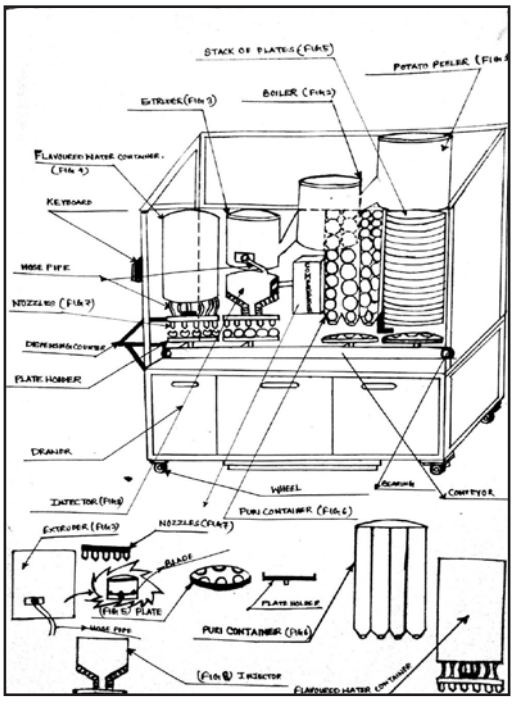
The invention takes about development of single channel EMG based prosthetic hands over the complicated multi-channel EMG based prosthetic hands. Customization of this single EMG channel based prosthetic hand with an Android application is shown to add the similar short functionalities of multiple EMGs and facilitates multiple grasp patterns.

The developed prosthetic hand can easily grape different objects of various shapes as tennis ball, cookie, egg, Rubik's cube in real-time.

The invention has been filed for patent (application no 201931049269).

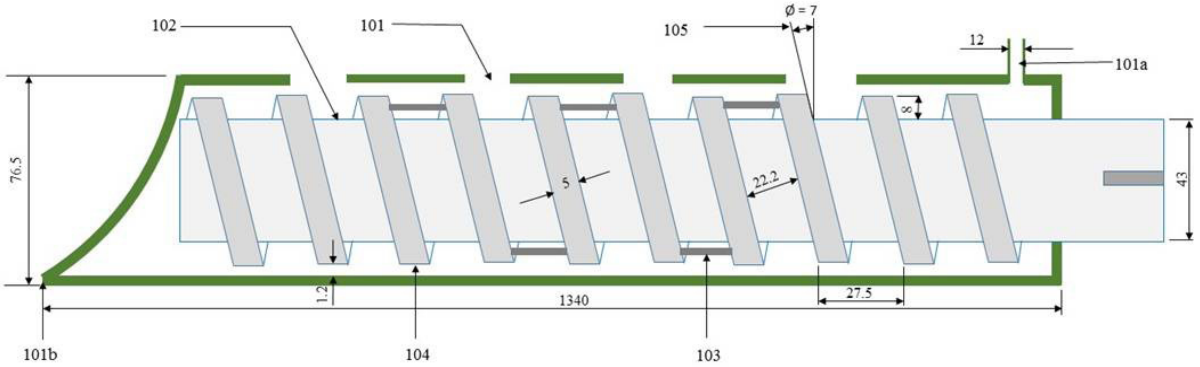
Integrated and automated set up for preparation and vending of panipuri

Saurav Jyoti Sarma, Abhijit Nath, Polas Pratim Dutta and Chandeep Suman Gogoi from department of Mechanical Engineering, Tezpur University have invented an integrated system where the preparation and delivery of panipuri can be obtained with minimum human intervention, aimed largely for reducing the chances of contamination and freedom of enjoying the same at any point of time. The invention in the present form can address issues of preparation of the ingredients by cleaning, peeling, cooking, mashing, mixing, inserting, arranging, and vending of panipuri together with accepting payments against the services provided. The issue related to freshness of the ingredients is also taken care by replenishing requirements from fresh stock, maintaining crispyness etc.



The invention has been filed for patent (application no. 201831009678)

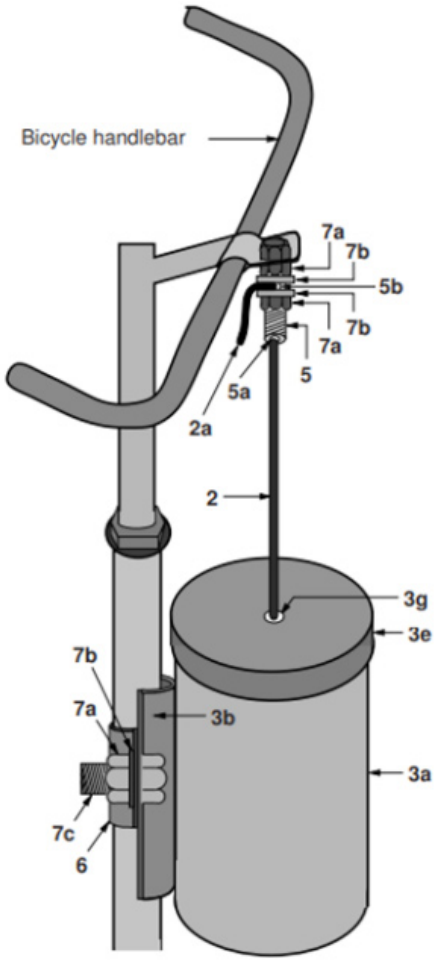
A Continuous Jaggery making machine



Amit Baran Das and Himakshi Baishya of Food Engineering and Technology, Tezpur University has invented a continuous jaggery (also called as Gur in India) making machine. This machine is an innovative attempt which increases the production rate of jaggery and decreases the requirement of man power. Also, this process makes jaggery in more hygenic way.

The invention has been filed for patent (Application no. 201931012050).

A saddle system for female bicycles adapted to counter forward slip of rider on saddle surface during sudden braking



Dilip Datta, Sudipta Saikia, Zahnupriya Kalita and Arpeeta Saikia of Department of Mechanical Engineering, Tezpur University has invented a saddle system for female bicycles adapted to exert desired backward reactive force for countering the forward slip of the rider on the saddle surface during sudden braking by tilting the saddle nose automatically. It also provides an additional mechanism which can be fixed beneath the existing saddle arrangement of a female bicycle for ensuring stability of the riser during mounting, dismounting, riding and even on sudden braking.

The invention has been filed for patent (Application no. 201831045154).

Workshop on IPR for school children on 1st October, 2018

As part of the Silver Jubilee Celebration of Tezpur University and Decadal Existence of the IPR Cell, a special IPR workshop was conducted for school children in Tezpur University campus on 1st October, 2018. Schools from Tezpur town and villages in and around Tezpur University participated. As many as 256 students and school teachers attended the programme that was organized in collaboration with CIPAM, a professional body under the aegis of Department of Industrial Policy and Promotion (DIPP), Govt. of India. It is noteworthy to mention here that this programme was a maiden event in this region of the country at school level to facilitate, students, teachers and educators realize the importance of Intellectual Property Rights and to orient them towards an IP conscious ecosystem. With National Intellectual Property Rights (IPR) Policy in place from May 2016, the Government of India has been undertaking several IPR awareness programmes across the country, under the flagship of CIPAM, for schools.

The key focus of every such initiative is to nurture creativity and the ability to innovate from a young age and to become conscious of its protection through various IPR tools. Taking cognisance of the importance of this nationwide initiative, the IPR Cell had been planning to organise such a programme for a long time. This workshop symbolised inclusion of both private and public schools within the ambit of IP consciousness. Five Schools namely: Don Bosco School, Fakkruddin Ali Ahmed High School, Tezpur Gurukul School, Napaam Model High School and Kabilabad High School participated in the program.

Participants with the organizers of the workshop.

The participants during one of the technical sessions.

The gathering was welcomed by Prof. P. Deb, then Coordinator, TUIPR Cell and inaugurated by the Vice Chancellor of Tezpur University, Prof. V.K. Jain. Ms. Divya Srinivasan, CIPAM, deliberated on "IPR Awareness for School Children". While introducing the theme to the school students, Prof. Deb highlighted the importance of innovation in our daily lives. He encourages the school students to dream of ideas which will lead to innovation and development of technologies in future. Taking the discussion forward in his inaugural address, Prof. V.K. Jain, threw light on the practice of rampant and deliberate copying of material found in the web for doing assignments by school students. Stating this workshop to be a unique beginning, the Coordinator expressed that including concepts of IP and IPR at school level in very basic form, shall instil a sense of respect among the students regarding of IPs for others and encourage them to become creative and to appreciate originality.

Ms. Divya Srinivasan, CIPAM, during the technical session.

A quick summary of the proceedings was provided by Dr. Juri B. Saikia, Research Officer, IPR Cell followed by a vote of thanks.

Celebrating IP Day

In 2017

With the theme "Innovation – Improving Lives", Tezpur University Intellectual Property Rights Cell celebrated the World Intellectual Property Day, on 26 April, 2017. The celebrations included a half day programme comprising of the IP Day Quiz, Best Innovative Idea Competition and Slogan writing competition relevant to Intellectual Property Rights. The event was organised in the Council Hall of Tezpur University with a gathering of students, research scholars and faculty members from various departments. This year 23 groups, consisting of 46 students participated in the quiz competition which lasted for 4 long hours. Other events also witnessed encouraging participation.

IP day 2017 talk by Prof. N. Karak.

In 2018

IP day Quiz, 2018.

Like every year, that year too, the World Intellectual Property Day was celebrated in the campus with much enthusiasm and creative engagements. However, the competitive events for IP Day 2018 had to be organised on the eve 26th April, to accommodate events for RITES-2018. The much-awaited quizzing event, the IP Quiz, was conducted by Mr. Ashutosh Das, a TU alumnus, that was based on issues related to intellectual property and its associated rights. The exercise exposed the participants not only to the theme of this year "Powering change: Women in innovation and creativity", but also to small nitty-gritties of intellectual property in our lives, that we come across regularly, but often fail to recognise due to ignorance. 26 teams participated in the event and two teams were adjudged winner and runners up respectively.

A national symposium was organized on 26th April, 2018 in Tezpur University, coinciding with celebration of 10th year of establishment of the TUIPR Cell, and Silver Jubilee Celebration of the University's establishment. This symposium on "Role of Innovation and Technology for Sustainable Development : Integrating Transformation with Sustainability (RITES-2018)" was a maiden attempt in this region to bring together top management professionals from industries, academicians, researchers & students of diverse fields together to discuss various dimensions of academia-industry partnership and exchange ideas, practice and experiences on different aspects of industry-academia integration.

Invited experts from industries like Hindustan Unilever, IBM, Permacel Ltd., ONGC, etc. deliberated upon the latest innovations in their respective sectors. They also participated in discussions on facilities that are expected for working in collaboration with universities. Entire focus of these deliberations was concentrated around facilitating pro-industry research in the region.

Innovation exhibition during RITES-2018.

Celebrating IP Day

Resource persons with the organizer of RITES -2018

Experts from government bodies like Indian Patent Office, NRDC and MSME appraised the gathering about the schemes that are available for supporting such industry-academia collaborations and entrepreneurship.

In 2019

In 2019, Intellectual Property Day was celebrated in Tezpur University on April 26 under the flagship of TU-IPR Cell with an array of programmes that were meant to focus on encouraging innovation and creativity. That year the theme of the celebrations was centred around "Reach for Gold: IP and Sports". Together with the annual IP competitions like quiz, best innovative idea competition and slogan writing competition, the IP Day was celebrated with an IP lecture series where deliberations were held on the latest innovations in various fields from the invited speakers. Deliberations from experienced industry executives like Asian Paints, Playin App Technologies limited, Panacea Medical Technologies Pvt. Ltd. and officials from institutions like Guwahati Medical College & Hospital, highlighted on how some of the home grown technologies are finding acceptability and making their way not only in the Indian market replacing highly competitive MNC products, but are also being exported to other countries. One of the heart-warming examples was discussed after the presentation on physics of applying radiation therapy to cancer patients, which was an indigenous technology developed in the form of "Bhabhatron -II" .This invetion was basically a Cobalt Therapy Machine made by BARC in collaboration with Board of Radiation and Isotope Technology & SAMEER and licensed to Panacea Medical Technologies.

This is believed to bring down the price of the treatment of cancer patients as these are manufactured with less than one-tenth of the price of the imported machine. Similarly, the evolution of the Asian Paints from manufacturing mere exterior paints to creating paints that are weather proof, purifies indoor air, kills bacteria etc. took the participants through an interesting journey of self-evolution fuelled by the zeal to remain market leaders. During the interactive sessions, the participants realized that remaining articulated and self-motivated is the key to innovate constantly. One presentation on the perspective towards Sports and Robotics at Tezpur University by one of the in-house faculty member showcased the AI capabilities of the University to the invited guests and the participants.

Another presentation that was dedicated to the theme of the celebrations was from the app developer enterprise, Playin App Technologies, which showcased an integrated platform to connect all the sports related services and utilities through one mobile based application.120 students from University and nearby colleges/institutes participated in the same.

Felicitation of Dr. N.M. Kakoti, Associate Professor, Dept of ECE, Tezpur University during the technical session-II at IP day, 2019.

2nd Industry Academia Conclave on 30th December 2018

Inaugural session, Welcome address and Introduction by Prof. P. Deb, then coordinator, TUIPR cell.

As part of celebration of its silver jubilee, a regional workshop on "Translational Research and Innovation-….. making use of IPR across value chain" was organized on 30th of Dec (Sunday), 2018. This workshop cum training programme, jointly organised by TUIPR Cell with NRDC, was aimed at providing solutions to technological demands through deliberations from top technocrats belonging to various sectors like Oil India Ltd, Duliajan, M/s Medlis Healthcare Pvt Ltd., Ahmedabad, Bhogali Food Products Pvt. Ltd., Guwahati, Williamson Magor Group etc. and professionals from organisations like LS Davar and Co. (IP attorney), Indian Patent Office, Kolkata and NEIST Jorhat.

Prof. Pritam Deb, then Coordinator, TUIPR Cell, shared with the gathering about the idea behind organizing such a workshop for the innovators in his welcome address. Inaugurating the workshop, Dr. H. Purushotham, CMD, NRDC stressed "inventors must focus on Technology Readiness Level (TRLs) and work more aggressively on bridging the gap between technology and market requirement". He further elaborated on investment patterns of developed countries on successful technology translation from Lab Scale and market ready prototype.

Resident Chief Executive, OIL, Shri B.P. Sarma, the Guest of Honour, while discussing the research and development activities of Oil India Limited, provided a sneak peek into the perspective with which the industries like OIL see translational research. Elaborating on the technologies invented and secured by the organisation in terms of patent she further stated that very soon these will be rolled out for commercialization. Expressing hope for collaboration with academic institutions, he stated that that technology infusion and collaboration seems possible in terms of certain areas like Enhanced Oil Recovery (EOR), reducing wastage of crude oil while exploration etc.

Presentation by Shri Bipul Gogoi, Manager, Boroi Tea Estate

The spirit of the workshop on translating innovations to marketable technologies was further elaborated by the Dean Research and Development Tezpur University, Prof. A.K. Mukherjee.

The workshop was attended by 30 selected participants from various fields of science and technology, who had one or more technologies in hand and are getting ready for translation in the next level. Besides, having dedicated sessions on sectors like Pharmaceuticals, Oil Industry, Food Industry, Tea Industry, Industry-Academic Business Incubation etc., the workshop included presentations from 14 innovators which were showcased to the industry representative and IPR professionals for comments. The daylong programme ended with a vote of thanks from the Research Officer, IPR Cell Dr. Juri B. Saikia.

Participants of the workshop with the resource persons and the Organizers.

IPR workshop for the Muga weavers and cultivators

Weaver and cultivators of Muga as participants of the workshop

A workshop was conducted at Harhi College on 24 the October, 2019 on 'Effective use of Geographical Indication and Trademark in the market for handloom industry'. This workshop was the culminating workshop in the series of the earlier two IPR workshops held in and around the Muga Cultivation Hub of Assam, i.e. Lakhimpur. These workshops were meant for empowering the Muga Cultivators to face competitive market forces with renewed confidence by using various IPR tools. This time, going a step ahead, the workshop was organised jointly with the MSME-Di Guwahati to acquaint the cultivators and weavers about various Govt. Schemes to help them grow and establish as independent entrepreneurs. The workshop was also supported by GI Registry Chennai for its effort to bring this unorganised sector and the workers into a more organised form.

The authorised users from Assam are now empowered to certify Muga Silk's purity and authenticity by using the GI mark and logo on the finished products. Chief Guest of the programme, the SDO, Gobindapur, applauded the initiative of the TUIPR Cell to reach out and support the grassroot people. In his concluding remarks he reiterated the need to protect the intellectual properties associated with the traditional goods.

The technical sessions started with the first presentation on the topic "Overview on Intellectual Property Rights". This was meant to introduce the gathering with other tools of IPR like Copyright, Patents, Trademarks which can be useful in protecting their intellectual property for any economically important product that is created besides the Muga fabric. Starting with the definition of discovery and invention, the joint deliberation by Prof. P. Deb and Dr. Juri B. Saikia saw discussion on importance of IPR through a reflection on popular commercial products that had several IPRs within it.

Officials from MSME-Di Guwahati and TUIPR Cell, Tezpur University participated in the workshop as resource persons. These IPR workshops have resulted in more than 300 Authorised Users for the GI-Muga Silk so far.

The participants, mostly the Muga weavers and cultivators from Gobindapur-Dhokuakhana areas, applauded the persistent efforts put in by the TUIPR Cell to make the intellectual property of the community... Muga silk ...unadulterated entity in the market and increase the visibility for the interested buyers across the country and beyond.

The people participated in the discussion that followed during and after the presentation. They realized how without being aware of its presence, they had been witnessing and using many IPRs for their daily lives and how each of them affected their market presence and saleability.

Vote of thanks was delivered by the Research Officer at IPR Cell, Tezpur University, Dr. Juri B. Saikia.

Conferring the token of Appreciation by SERIFED to TUIPR Cell through SDO.

IPR Awareness Programme at Beltola College

Resource persons with the faculties of Bellota College and other invitees from nearby colleges.

TUIPR Cell of Tezpur University was invited to conduct a daylong workshop on 'Intellectual Property Rights' at Beltola College, Guwahati on August 10, 2019. The workshop was organised by the Department of Political Science of the College in collaboration with Enajori (NGO). Professor Pritam Deb, Department of Physics and then Coordinator, Tezpur University Intellectual Property Rights (TUIPR) Cell explained the participants about 'Introduction to Intellectual Property Rights' while Dr. Juri Borbora Saikia, Research Officer, TUIPR Cell delivered a lecture on 'Geographical Indications and its implications on communities'.

A quiz on IPR was also conducted by Ashutosh Das, alumni of Tezpur University and founder of the start-up "Knowit". Around 60 participants joined in the same.

A one day IPR awareness programme was organised by the Institutional Innovation Council (IIC) of St. Mary's College, Shillong on 7th March, 2019 to deliver a talk on **'Basics of IPR'.** Dr. Juri B. Saikia, Research Officer, TUIPR Cell, Tezpur University deliberated on 'IPRs for Entrepreneurs'to enlighten the young entrepreneurs with opportunities with IPRs in business. Around 80 students participants from various departments participated in the programme.

Felicitation of Dr. Juri Borbora Saikia (left) and while she was delivering her speech (in right).

WORKSHOP ON INFORMATION ACCESS AND ANALYSIS

A day long workshop was organised by the Tezpur University Intellectual Property Rights Cell in collaboration with the Central Library, Tezpur University on 10 May, 2017 for the students and researchers in the University. The workshop was themed on Information Access and Analysis in the Innovation and Research Value Chain.

The main aim behind organising such a workshop, in addition to the annual Patent Search and Analysis workshop, was to give a hands-on exposure to the diverse information sources/databases that may be accessed in various subjects of interest in Science, Technology, Humanities and Languages etc.

Shri N.V. Sathyanarayana, who is one of the pioneers and experts working in the field of information access and technologies, and Shri. Sambhunath Sahoo, then Information Scientist in Central Library, Tezpur University deliberated upon various topics.

The topics of discussion ranged from the Art of Searching: Non-Patent Literature which covered broadly the issue of conducting targeted search of databases for contextual information with special emphasis on approaches, strategies and methods, to Access of E-Resources at Tezpur University. 37 participants from within and outside the university participated in the same.

GANDHIAN YOUNG TECHNOLOGICAL INNOVATION (GYTI) AWARDS

It's a matter of pride that young researchers from our University have received the Gandhian Young Technological Innovation (GYTI) Awards for three times consecutively. We, TUIPR Cell family, congratulate them for the award and for their extraordinary research and innovations.

Winner of GYTI Award -2017

Patent applied as "Smartphone based system for detection and measurement of chemical and biological species in liquids" with application no. 201631022922 applied on 4th July 2016

Gandhian Young Technological Innovation (GYTI) Award 2017 was conferred to Mr. Iftak Hussain of Dept. of Physics, Tezpur University and his research group for the innovative work on design and development of low-cost and field portable smartphone based optical platforms for photometric sensing application, specifically useful for water quality monitoring.

Awardees receving the award at Rashtrapati Bhavan.

Winner of GYTI Award -2018

Patent applied as "Novel Soil Conditioners" with application. no. 201631010727 applied on 29th March, 2016.

Gandhian Young Technological Innovation (GYTI) Awards 2018 was conferred to the students of Tezpur University namely: Ms. Pallabi Das, Dept. of Environmental Science and Ms. Kasturi Sarmah of Dept. of Chemical Sciences, Tezpur University and their research group for their innovative work on large-scale synthetic routes to manufacture iron (oxalate) capped metal oxide nanomaterials that are wonderful soil conditioners for increasing micronutrient availability to plants with least toxicity

Awardees receving the award from the Honourable President of India at Rashtrapati Bhavan.

Winner of GYTI Award -2019

Patent applied as "Integrated and automated set up for preparation and vending of panipuri" with application no. 201831009678 dated 16th March 2018.

The recipients are three mechanical engineering students Mr. Saurav Jyoti Sarma, Mr. Abhijit Nath and Mr. Chandeep S. Gogoi who had initiated this work as part of their B. Tech project. The idea behind this invention was to prepare hygienic panipuri quickly and make it available to the consumers, as per their choice 24/7. This machine works as a single unit but has various subunits for storing items like hollow bread, different types of stuffings, various types of flavoured water and sauces. An interface unit (OLED screen) allows customer to choose appropriate option with guided instruction for transaction. Lesser space requirements make it easy choice for installation in places like malls, restaurants, luxury hotels, airports etc. This machine is believed to promote acceptability and ensure availability of this Indian Snack across the world.

Awardees receving the award at Vigyan Bhavan.

FACILITATING PROTECTION OF IP GENERATED IN TEZPUR UNIVERSITY

List of Granted Patents during 2017-19

Sl. No	Patent no.	Title	Inventors
1	280737	Arsenic removal from groundwater by oxidation – coagulation at controlled pH for domestic and community applications.	Robin K. Dutta, ShreemoyeeBordoloi and Suresh Kr. Nath
2	283552	"A process for the preparation of amla chips"	Poonam Mishra, Vandana Mishra, G.K. Rai
3	285978	A process for preparing carbon nanotubes for non-biodegradable polypropylene and polytetratheplete	Ravi Bihari Srivastava, Sanjoy Kumar Samdarshi and Samrat Paul.
4	289204	A highly efficient defluoridation method by in-situ generation of an efficient precipitant and strong adsorbents of fluoride in crushed limestone fixed –bed column and plug flow reactors.	Robin K. Dutta and Suresh Kr. Nath
5	297449	Single step process for the synthesis of polyaniline nanofiber reinforced polymer nano composites	Ashok Kumar and Somik Banerjee
6	312661	A tough synthetic low dielectric hyperbranched epoxy thermoset and a process of preperation thereof	NiranjanKarak and Bibekananda De
7	325837	Digital Occupany Meter for Commercial Passenger Vehicles	Pradyumna Kr. Choudhury

List of applied patents during 2017-2019

Sl. No.	Application no.	Title of the Patent	Name of the Inventors
1	201931052903	Custom synthesized Neuritogenic Peptides and its uses thereof	Ashis Kumar Mukharjee, Taufikul Islam, RupakMukhopadhyay, MunmiMajumder
2	201931049269	An EMG based Prosthetic Hand Controller for Real Time Grasping realizing Neuromuscular Constraint	Nayan M. Kakoty, LakhyajitGohain
3	201911027455	Aptamers against phospholipase A2 in snake Venom and uses thereof	Tarun Kumar Sharma, Anjali Anand, Robin Doley
4	201931020800	Polymer/antibiotic coated Muga (antheraeaassamensis) silk suture	Arup Jyoti Choudhury, Gazi Ameen Ahmed, NamitaOjah
5	201931014698	Two dimensional heterostructure based composite films for food packaging	Pritam Deb and MeenakshiTalukdar
6	201931020800	An optical fiber prototype instrument for online monitoring of transformer oil insulation	P. P. Sahu
7	201931012050	A continuous jaggery making machine	Mr. Amit Baran and Das HimakshiBaishya

8	201831038837	Toxins-targeted specific novel anti snake venom	Asish Kumar Mukherjee Aparup Patra, Sumita Dutta, BhargabKalita and Abhisekh Chanda
9	201831045154	A bicycle saddle system adapted to exert backward reactive force in countering the forward slip of the rider during sudden braking	Dilip Dutta, ArpeetaSaikia, ZahnupriyaKalita and SudiptaSaikia
10	201831045155	System for enhancing stability of bicycle by steering-back handle bar automatically	Dilip Dutta, SudiptaSaikia, ZahnupriyaKalita and ArpeetaSaikia
11	201831009528	A portable optical fiber instrument for instant petrol purity detection	Partha PratimSahu
12	201831009592	Designed 2d graphitic sheet for viscous oil removal using magnet	Pritam Deb and MeenakshiTalukdar
13	201831009678	Integrated and automated set up for preparation and vending of panipuri	SauravJyotiSarma, Abhijit Nath, PolasPratim Dutta and Chandeep Suman Gogoi
14	201831010002	Toxin-epitope based detection of species-specific snake envenomation	Asish Kumar Mukherjee and Sumita Dutta
15	201831010001	Synthetic anticoagulant peptides derived from Najanaja snake venom	Asish Kumar Mukherjee and Sumita Dutta
16	201831009091	A smokeless multifunctional and multipot solid fuel stove	BiswajitGogoi and Debendra Chandra Baruah
17	201731009379	Magnetic secondary nanostructure as contrast agent for Magnetic resonance imaging	Pritam Deb and KoushikSaikia
18	201731000104	Selective para-hydroxylation of substituted aromatic hydrocarbons using H2O2 catalyzed by waterborne hyperbranched polyurethane/carbon quantum dot nanocomposite	NiranjanKarak, Vijay Kumar Das and SatyabratGogoi

HIGHLIGHTS

Empowering Muga weavers with GI

"Muga Silk of Assam is protected as a Geographical Indication (GI) from Assam since 2007. However, a major lacuna surrounding this GI has been the extraordinarily low number of "authorised users". In 2014, the total number of authorised users of the GI-Muga Silk of Assam was only 2. Tezpur University tried to bridge this gap by organising GI camps for the stakeholders in remote clusters during 2015-2019. This helped in increasing the number of authorised users from 2 to more than 300. These registered authorised users can now lawfully use the logo and assure purity of the product in the national and international market, which in turn can help in impacting the entire value chain positively."

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education | EXPANDING YOUR HORIZONS

Who owns your big ideas?

RIGHT TO COPYRIGHT College campuses are starting to safeguard students' and their own intellectual property with special cells that help with patents and paperwork. For researchers, dreaming big just got safer

Vanessa Viegas

As innovation becomes core to the college experience, campuses are stepping up to safeguard the intellectual property rights (IPR) of their students.

Whether it is a physical product, an image, or a piece of text, if a project is novel, a student can now apply for patents and copyright, with some campuses setting up dedicated IPR cells to offer legal counselling, streamline paperwork, and help students identify their own IP while respecting the IP of others.

"IPR can provide security and monopoly privilege to the institute and the student to develop such ideas commercially," says Chaitali Chinubhai, a research associate with the IPR cell of the National Institute of Design (NID), Ahmedabad.

The copyright or patent is typically owned jointly by the student and the institute. The college is usually the applicant and the student, the inventor, so inventorship credits accrue to the student.

"IPR cells help students display their work and attract potential buyers of technology, ideas or products, and help in the commercialisation of a product," says professor Pritam Deb, coordinator for the IPR Cell at Tezpur University.

PLUGGING THE GAPS

In the absence of separate IPR laws for universities, campuses are drafting their own policies; keeping in view the objectives of the National IPR Policy adopted by the Government of India in 2016. One of the prerequisites for filing, according to the IPR law, is that a work should be novel, ie new, non-obvious and with tangible outcomes or utilities.

The type of IPR is chosen depending on the type of product. For instance, if it's a material product or a new process, it comes under patents. Aesthetic and design-based innovations as well as films and video come under the Indian Copyright Act of 1957.

"India follows a first-to-file rule, so it's always better to e-register and then proceed with the work, even if only a prototype is ready," says Ranjhun Tandon, assistant dean and head of the IPR Cell at Lovely Professional University. "Novelty should not be lost even by prior publication in a journal."

Rubiya Khurshed, 27, a research student at LPU, for instance, has filed for a patent for her project under the International Patent Corporation Treaty (PCT), with her filing currently under review. PCT is an international treaty that could protect her innovation for the treatment of Type 2 diabetes using a curcumin formulation, across 145 countries.

"It acts as both an asset and a protection to students," she says. "It also is an added advantage for placements and other applications on campus."

Her university provides support for patent searching, drafting and filing. Seed money is also provided for developing prototypes and validating research.

"We are now exploring commercialisation possibilities with nutraceuticals and herbal companies, so that the innovation can be made available to the masses," says Tandon.

> IPR cells help students display their work and attract potential buyers of technology, ideas or products, and help in the commercialisation of a product. We also share royalties on inventions produced by students.
> PRITAM DEB, coordinator for the IPR Cell at Tezpur University

TIME AND MONEY

Securing intellectual property rights is not an easy process, though. "Some patents are registered within a month of application, many others take up to four months, depending on the queries between the student, attorney, patent officer and faculty member," says Jitendra Kumar Pandey, associate dean, research and development, at the University of Petroleum and Energy Studies (UPES), Dehradun. "The final granting of a patent can take years."

For Mohit Khatri, who is studying mechanical engineering at UPES, just filing for a patent for new infrastructure for charging electric vehicles took him about two months.

"It's a long-drawn-out process, but doing this has helped me push the envelope and become more industry-ready," he says. "The university helped me with all the processes, from filing to responding to queries from the patent officer.

Expenses were also borne entirely by the institute."

Typically, universities also pay renewal fees for half the 20-year life of a patent.

"We also always share royalties on inventions produced by students on campus using university facilities," says professor Deb.

Terms of sharing differ across universities. In cases where students leave the campus, or move out of the country, the college carries out the rest of the patent registration process with the help of an authority letter from the student.

The cost of applying for a patent typically ranges from Rs 4,000 to Rs 9000.

"However, one needs to request for examination of the patent and attend to the First Examination Report, which has other associated costs," says Deb. Every 10 or 20 years from the date of filing, the patent owner must also apply for renewal of the patent, or risk it lapsing.

is the time for an elations degree'

Gap-year goals: Plan ahead, budget well, try something new

STUDY ABROAD

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