ACTIVITY REPORT OF

TECHNOLOGY INNOVATION SUPPORT CENTER (TISC) KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

Submitted to



Cell for IPR Promotion and Management (CIPAM) Department for Promotion of Industry and Internal Trade Ministry of Commerce & Industry



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Introduction

Intellectual Property Rights (IPR) protection plays a key role in gaining an advantageous position in the competitive technology game for achieving economic growth. Karnataka enjoys large scientific human resources in India with state-of-the-art research and technology centres and scientific establishments in the country. The Patent Information Centre (PIC) at Karnataka State Council for Science and Technology was established under Technology Information, Forecasting and Assessment Council of Department of Science and Technology, Government of India in March 2005. As per the action plan and directions of Department of Science and Science and Technology (DST) the PIC, KSCST has performed many activities and service related to IPRs in the state and outside the state as well.

The Technology Innovation Support Centers (TISC) creation and expansion of TISC network in India is aligned to the vision statement of National IPR Policy 2016 "An India where creativity and innovation are stimulated by Intellectual Property for the benefit for all". To effectively implement National IPR policy, the Cell for IPR Promotion and Management (CIPAM) has been created as focal point under Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry and Government of India.

In the month February 2020 Karnataka State Council for Science & Technology (KSCST), Bangalore in association with CIPAM, DPIIT, Ministry of Commerce & Industry, Government of India jointly organized National symposium on "Technology & Innovations interface with IPR" The inaugural Session started with lighting of lamp by Prof. T. Ramakrishna Head, Center for IPR & Advocacy, NLSIU, Prof. Ashok M. Raichur, secretary, KSCST, Mr. H. Hemanth Kumar, Executive secretary, KSCST, Mr. Shubam, Assistant Manager, CIPAM at Satish Dhavan Auditorium, IISc, Bangalore.



Group photo of the programme

The event was attended by faculty members, IP Coordinators of various colleges and universities, Research Scholars & industry professionals. Prof. T. Ramakrishna delivered Key note address and spoke about intellectual property can result in the country economic growth. He also mentioned that in India is an innovative country and we need to take steps for the protecting of the same and maintain balance interest between the public rights and private rights. His core focus of discussion was millennium development goals, sustainable development goals, UN development agenda, public, health, food security etc

On the same day has entered in to a MoU with the CIPAM for the establishment of Technology Innovation Support Centre (TISC) at KSCST which is 9th TISC center in India and first of its kind in Karnataka. This TISC helps in advance training on IPR to staff, student's faculties and the inventors



Handing over of TISC Institutional Agreement

To disseminate the information on Intellectual Property Rights to the needy community, the council achieved this by creating an IP ecosystem. It involved in establishment of IP cells with universities and colleges, organising awareness and training programmes, workshops with schools and colleges, Web seminars and also by delivering technical talks on Intellectual Property Rights at various platforms.

To sum up, for the academic year 2020-21 PIC KSCST has established 12 IP cells, assisted in filing 9 patents, 3 trademarks, a copyright application, conducted more than 50 webinars (includes awareness programmes, workshops, training programmes) in association which various schools, colleges, and universities. At TISC KSCST about 25 priorart search reports have been generated. Further the staff of TISC PIC KSCST were also delivered lectures on IPR in various platforms in the state. More than 50 visitors personally interacted to TISC KSCST on IPR issues.

Patent Applications:

KSCST receives many applications from faculty, start-ups, students, entrepreneurs etc. Initially it is suggested to conduct priorart search for the inventions for novelty check and KSCST conducts preliminary priorart search. After examine the potential of the IP, suitable advice and further filling and consulting with the experts will be taken care by PIC TISC KSCST.

KSCST will also assists the filings of IP Cells established by KSCST. A total of 9 patents (including IP cells filings) is filed during the 2021-21. About 25 projects priorart search done by KSCST.

Sl.no	Title	Date of Filing	Application no/Ref No	IP Cell
1.	Hexagonal hollow chambered Li-ion cell module with insulation plate for individual cell replacement	28-08-2020	202041037156	KSCST
2.	11Ghz Radio Transceiver Architecture with F-OFD and 128 QAM modulation for 5G for mobile system	01-10-2020	202041042872	DBIT
3.	Raspberry pi based smart refrigerator to recognize fruits and vegetables remotely	29-10-2020	202041047218	DBIT
4.	An efficient approach for traffic congestion and management using IOT devices and its implementation on fpga	29-10-2020	202041047230	DBIT
5.	Antimicrobial coconut soap composition	29-10-2020	202041047239	DBIT
6.	An intelligent system with gesture control to aid hearing and speech disabled people	04-11-2020	202041048106	DBIT
7.	Modified piston head to improve the combustion rate in internal combustion engines	05-11-2020	202041048270	DBIT
8.	Rolling seismic base insulator using stainless steel balls attached to the upper plate of base isolator	08-01-2021	202041056910	DBIT
9.	Palm, sole (foot) and hip massage base plate with rolling steel balls	01-10-2020	202041057081	DBIT

Table 1: List of Patents filed

IPR Awareness Programmes:

TISC & PIC cell at KSCST regularly conducts IP awareness programme in association with various engineering, degree colleges and universities. Due to COVID pandemic & lockdown many programmes were delivered in webinar mode. More than 4500 participants were participated in the IP workshops Conferences, and Awareness programmes conducted by KSCST. Details of the programmes enclosed in the table

Sl.no	Programme	In association with	Dates	Participation
1.	Online Certification Course on Intellectual Property Rights and Innovation (Batch 1)	CIPAM	16 th , 17 th , 18 th , 20 th & 21 st April 2020	100
2.	Online IP Clinic – COVID 19 on the occasion of World IP Day 2020	CIPAM	26 th April 2020	80
3.	Awareness on Intellectual Property Rights Specially for School Students	CIPAM	29 th April 2020	40
4.	Online IPR course and Innovation	CIPAM	29 th , 30 th April 2020 & 1 st , 2 nd May 2020	156
5.	World IP Day	Garden City University Bangalore	28 th – 30 th April 2020	200
6.	Online IPR course and Innovation	CIPAM	5 th to 8 th May 2020	80
7.	Webinar on IPR and Innovation	GM Institute of Technology, Davangere	19 th May 2020	200
8.	Webinar on IPR and Innovation	Don Bosco Institute of Technology (DBIT) Bengaluru	20 th May 2020	100
9.	Webinar on IPR and Innovation	Acharya Institute of Technology, Benagluru	27 th May 2020	50
10.	Webinar on IPR and Innovation	Padmashree Institute of Management and Sciences, Bengaluru	28 th May 2020	100
11.	2-Day web seminar on innovation and IP strategy	CIPAM and Karnataka Science and Technology Academy (KSTA) Bengaluru,	2 nd & 3 rd June 2020	140
12.	National Web Workshop on interface of IPR and Innovation in Social Sciences	School of Social Work, Roshni Nilaya Managlore	5 th and 6 th June 2020	115
13.	Establishment of virtual IP Cell: KLEIT-KSCST IP Cell cum IPR Awareness programme	KLE Institute of Technology, Hubballi	11 th June 2020	100

Sl.no	Programme	In association with	Dates	Participation
14.	Establishment of virtual IP Cell: EWIT- KSCST IP Cell & 5-Day web Conference on Innovation and Intellectual Property Strategy	East West Institute of Technology, Bengaluru	23 rd & 27 th June 2020	180
15.	Online Lecture on "Intellectual Property Rights	Sri Poornaprajna Evening College, Udupi	20 th July 2020	40
16.	Webinar on Intellectual Property Rights for Hotel management Professionals	KLE Society's S. Nijalingappa College, Bengaluru	24 th July 2020	50
17.	Three days National level FDP on "Intellectual Property Rights in Engineering Educations	ATME College of Engineering, Mysuru	29 th 30 th & 31 st July 2020	80
18.	Establishment of virtual IP Cell: SFGC- KSCST IP Cell cum IPR Awareness programme	Seshadripuram First Grade College, Yelahanka New Town, Bangalore	3 rd August 2020	150
19.	Three Day Faculty Development Programme on Intellectual Property Rights and Innovations	Seshadripuram First Grade College, Yelahanka,Bangalore & Karnataka Science and Technology Academy (KSTA),	4 th 5 th & 6 th August 2020	150
20.	National webinar on Intellectual Property Rights in Sports	Vidyodaya Law College, Tumkur & Physical Education Foundation of India - Karnataka Chapter	27 th August 2020	250
21.	Five Day National Virtual Workshop on Intellectual Property Rights & Innovations	Bishop Cotton Women's Christian Law College , Bengaluru	1 st to 5 th September 2020	270
22.	Virtual Inauguration of DSU- KSCTS IP Cell	Dayananda Sagar University, Bengaluru	19 th August 2020	200
23.	Virtual Inauguration of DU- KSCTS IP Cell	Davanagere University, Sivagangotri, Davanagere	18 th August 2020	150
24.	Orientation Programme on BIG (Biotecghnology Ignition Grant)	Bangalore Bioinnovation Center, Bengaluru	10 th September 2020	50
25.	Understanding the Intercasies & Values of IPR	Govt. First grade College, Gauribidanur, Chikaballapur Dist	10 th September 2020	100

Sl.no	Programme	In association with	Dates	Participation
26.	New Women - towards successful entrepreneurship IP Legal Aspects Patenting and Trademarks	Times Foundation Bengaluru	9 th September 2020	50
27.	Establishment of virtual IP Cell: BEA - KSCST IP Cell cum IPR Awareness programme	Bapuji Educational Association(R) Davangere	22 nd September 2020	150
28.	Lecture on Importance of IPR and its subject matters	Davanagere University, Sivagangotri, Davanagere	14 th October 2020	60
29.	Virtual Inauguration of KSCST-Atria IT IP cell Bengaluru	Atria Institute of Technology, Bengaluru	15 th October 2020	80
30.	5 day FDP on IPRs	Sir M Visvesvaraya Institute of Technology (Sir. MVIT) Bengaluru	19 th to 23 rd October 2020	100
31.	MoU signing of DU-KSCST IP cell	Davanagere University	12 th November 2020	50
32.	Awareness of IPR for Engineers and Industrialists Phase 1	SGBIT Belagavi	17 th to 22 nd November 2020	100
33.	Opportunities in Intellectual Property Rights	St. Claret College, Bangalore SCC-KSCST IP Cell	28 th November 2020	50
34.	Awareness of IPR for Engineers and Industrialists Phase - 2	S G Balekundri Institute of Technology, Belagavi	7 th to 12 th December 2020	50
35.	IP Audit & Commercialisation	Cell for IPR Promotion and Management (CIPAM)	7 th & 8 th December 2020	25
36.	FDP on Social Justice	Acharya Institute of Management and IT, Bengaluru	9 th December 2020	50
37.	National Webinar on Intellectual Property Rights	Karnataka Science and Technology Academy (KSTA) & Adarsh Group of Institutions, Bengaluru	8 th to 11 th December 2020	265
38.	Webinar on "Intellectual Property Rights in Engineering	Channabasaveshwara Institute of Technology, Gubbi	8 th December 2020	60
39.	Signing of MoU BMSCE - KSCTS IP Cell	BMS College of Engineering, Bengaluru	14 th December 2020	50
40.	Orientation Programme on IPR for researches and students	Krupanidhi Group of Institutions Bengaluru	15 th December 2020	100

Sl.no	Programme	In association with	Dates	Participation
41.	IPR and Technology Issues, Block Chain	Acharya Bangalore B School [ABBS] , Bengaluru	16 th December 2020	50
42.	Awareness of IPR for Engineers and Industrialists Phase - 3	S G Balekundri Institute of Technology, Belagavi	21 st to 26 th December 2020	60
43.	Webinar on Intellectual Property Rights	Amruta Institute of Engineering & Management Sciences (AIeMS)	23 rd December 2020	50
44.	Virtual session on Intellectual Property Rights for MSMEs	MSME Development Institute, Rajajinagar Bengaluru	28 th December 2020	35
45.	Two-day workshop on Intellectual Property Rights	Acharya Instituties, Bengaluru	7 th & 8 th January 2021	65
46.	2 Day virtual session on IP Audit & Commercialization for Industries and Start-ups - Karnataka chapter	Cell for IPR Promotion and Management (CIPAM)	11 th & 12 th January 2021	35
47.	Establishment of virtual IP Cell: BMSCE - KSCST IP Cell	BMS College of Engineering, Bengaluru	13 th January 2021	40
48.	The Oxford-KSCST-VTPC center for Patent and Technology Transfer	The Oxford Institutions	18 th January 2021	50
49.	MoU signing of SFGC- KSCST IP Cell	Seshadripuram First Grade College, Yelahanka New Town, Bangalore	19 th January 2021	-
50.	Establishment of KSCST- REVA University IP Cell	REVA University, Bengaluru	28 th January 2021	80

IPR Cells Established:

To improve IP ecosystem as per the directions from DST and CIPAM, KSCST in association with the host institutes / Universities has established IP cells in the states. A total of 35 IP cells have established by Council including the current 12 IP cells established during the year 2020-21

In order to achieve the said objectives KSCST would help these IP cells by supporting in all the IP matters like, identifying of experts, technical support, coordinating in IPR awareness programmes, drafting the patent policies of the institute, strengthening the knowledge of staffs of IP cells etc. The following table gives the details of IP Cells established during the year 2020-21.

Sl.no	College /University	Category	Date of
			Establishment
1.	KLE Institute of Technology, Hubballi (KLEIT)	Engineering	11-06-2020
2.	East West Institute of Technology (EWIT)	Engineering	23-06-2020
3.	Seshadripuram First Grade College,	Degree	03-08-2020
4.	Davanagere University Shivagangotri, Davanagere	University	18-08-2020
5.	Dayananda Sagar University, Bengaluru	University	19-08-2020
6.	Bapuji Educational Association (BEA)	University	22-09-2020
	Bapuji Institute of Engineering & Technology		
7.	Atria Institute of Technology (Atria IT)	Engineering	15-10-2020
8.	Sir M Visvesvaraya Institute of Technology (Sir. MVIT), Bengaluru	Engineering	19-10-2020
9.	S G Balekundri Institute of Technology (SGBIT) Belagavi	Engineering	21-12-2020
10.	Oxford Institutions and Visvesvaraya Trade	Engineering	18-01-2021
	Promotion Center (VTPC)		
11.	BMS College of Engineering, Bengaluru	Engineering	13-01-2021
12.	Reva University, Bengaluru	University	28-01-2021

Table 3: IP Cells established by PIC, TISC, KSCST

During the inauguration of these IP cells an awareness programme was also organised. Respective students, researchers, faculties, and other staffs of the colleges were taking part in this.

Glimpse of IP cells:



ATRIA - KSCST IP Cell



Devangere University – KSCST IP Cell



Presents

"Virtual Inauguration of BMSCE -KSCST IP Cell"

Date: 13th January 2021, Time: 10.00 am

Web Platform: Google meet - https://meet.google.com/zup-ftek-jza

BMSCE-KSCST IP Cell

Other IP filings:

A. Trademarks: 03

1	Name of Trademark	Swatch Sankirana	
	Indian / Other Country	India	
	Application No	4759355	389606 15 6 60
	Date of Filing	27-11-2020	ी भि उन्नुः क्षुः रोवांत्तंसन इक्षत्
	Date of Grant		
	Name of Applicant	Dr. R Vishal	
		Commissioner	
		Rural Drinking Water 7	
		Sanitation Department GoK	
	Class	Class: 40 41 42 44	

2	Name of Trademark	Ruchira	
	Indian / Other Country	India	
	Application No		
	Date of Filing	23-01-2021	
	Date of Grant		Ruchira
	Name of Applicant	Ramanjulu Goniguntla, Director Ruchira Project Pvt Ltd, Bengaluru	Projects Pvt Ltd
	Class	Class: 37	-

3	Name of Trademark	Shira Botanica	
	Indian / Other Country	India	IN THE
	Application No	4815174	
	Date of Filing	28-01-2021	
	Date of Grant		000000
	Name of Applicant	Ms. Meenakshi	AN'
		Hanuman Temple Road,	NOURISHING SKIN RITUALS
		Vidhyaranapura Bangalore	
		560097	
	Class	Class: 3	

B. Copyrights: 01

1	Name of Trademark	Swatch Sankirana	Litrary work:
	Indian / Other Country	India	Karnataka State Policy
	Application No		Strategy on Sanitation
	Date of Filing	7-11-2020	and Waste Managemnet
	Date of Grant		Bye-laws on Soid and
	Name of Applicant	Dr. R Vishal	- Liquid Waste
		Commissioner	Management
		Rural Drinking Water 7	
		Sanitation Department GoK	_
	Class	Class: 40 41 42 44	

C. Priorart searches:

Many innovates and from research institutes approaches TISC, PIC KSCST for checking the novelty and patentability criteria of their projects. About 27 projects have been received at TISC till December 2021 and conducted priorart search. It is found about 20 projects had potential for patenting and advised the inventors to take it further.

Sl.no	Tittle of the Project	Details of Inventor/Institution
1.	Medical Kit for monitoring coma patients	Ashwini P -Proffessor Reva university. Lokesh B- Student
2.	A modlue containing set of devices to convert an ordinary low cost vehical into a much safer and law abiding motor cycle	Dr Madhusudan M 9964022693
3.	Solar-wind powered desalination of sea water	Dr.VenkateshMurthy.B.S Associate Professor,School of EEE REVA University,Bangalore-560064
4.	Smart grid using block chain	Somalatha Moly T S Ramaiah Intellectual Property Rights Cell &.
5.	Sodium ion based supercapacitor development with high capacity and stability	Somalatha Moly T S Ramaiah Intellectual Property Rights Cell
6.	"Sodium poly achralet as a water absorbing media in natural cold storage (Eco freeze)"	Avinash G N 8197166340 kakud post harvest pvt. ltd.
7.	Safe-Met	Dr Madhusudan M BIT Bengaluru
8.	Smart Walk	Dr Madhusudan M BIT Bengaluru
9.	Safe Hands- FMGC	Deepak Kunnur Vector Forward Advanced Engineering
10.	Greener Synthesis' of the nanoparticles and its wide novel range of applications in all fields including newer and older technologies	Dr. N Shobha Bengaluru
11.	Parental Control app	Ms. Bhoomi H K Student, Reva University
12.	Android app to combat a pandamic	Dr. Rashmi S Associate Professor, Dept of ISE Dayananda Sagar College of Engineering
13.	Smart Wireless Charging Station with Prioritization of Charging Vehicles.	Mr.Girish R, Sri Venkateshwara college of Engineering, Bengaluru
14.	Sprayer	Mr. Mahesh, Bengaluru
15.	Sudden Infant Death Syndrome Monitoring Using a Smart System	Ms. Saudamini. V. Tergaonkar
16.	A smart device for monitoring of weight of gas cylinders.	Dayanand Sagar University, Bengaluru

Sl.no	Tittle of the Project	Details of Inventor/Institution
17.	A novel Approach for grading of human emotions using data analytics	Dayanand Sagar University, Bengaluru
18.	An approach to target capecitabine to colon through oral route using locust bean gum Formulation and Evaluation	Dayanand Sagar University, Bengaluru
19.	Ultra-wideband tightly coupled array antenna with Resistive FSS	Dayanand Sagar University, Bengaluru
20.	An Improved device for efficient heat transfer Potential for patent	Dayanand Sagar University, Bengaluru
21.	A Robust Model for Securing the Data in Video Communication.	Dayanand Sagar University, Bengaluru
22.	Molecular Docking and synthesis of Novel Isoxazole Derivatives as Acetyl cholinsterase and B-Secretase inhibitors in treatement of Alzheimer's Disease Potential for patent	Dayanand Sagar University, Bengaluru
23.	Formulation of Nano Emulsion containing Cod-liver Oil for Neuroprotective activity	Dayanand Sagar University, Bengaluru
24.	Formulation of albumin nanoparticles containing donepezil hydrochloride	Dayanand Sagar University, Bengaluru
25.	An Efficient Framework to Bifurcate Healthy and Diseased Vegetables and Fruits using Multimodal Approach	Dayanand Sagar University, Bengaluru
26.	Novel approach for Identification of Carrying Fishes based on the Behavioural Patterns to increase the fi sh yield -(Smart Fish Culturing)	Dayanand Sagar University, Bengaluru
27.	Novel method for the preparation of Abiraterone acetate in nanoparticulate form	Dayanand Sagar University, Bengaluru

Photographs:











