

1.SRI KUMAR PACKING PRODUCTS

BANGALORE CITY COLLEGE

(Affiliated to Bangalore University, Recognized by the Govt. of Karnataka & Accredited by NAAC)



STUDENT DECLARATION

I do hereby declare that the project report entitled **ORGANISATION STUDY** at **SRI KUMAR PACKING PRODUCTS**, submitted in partial fulfillment of requirements for the award of degree of **MASTER OF FINANCE AND ACCOUNTING** to **BANGALORE UNIVERSITY**, is my original work and not submitted to any other degree, title or price.

PLACE: BENGALURU

DATE: 15/11/2019



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V. V. Sanjana
SANJANA. V. V

(REG. 16YCCFC007)

2. CHARTERED ACCOUNTS COMPANY



NAAC

BANGALORE CITY COLLEGE

(AFFILIATED TO BANGALORE UNIVERSITY, RECOGNISED BY GOVERNMENT OF KARNATAKA AND ACCREDITED BY NAAC) #160, Chelikere main road, banaswadi outer ring road, kalyan nagar post chelikere, Bangalore-560043 Tel: 080 25439953, 25439954, 25439955, fax: 080 25459958

Ref

DATE: 15/11/2017

This is to certify that INTERSHIP training report entitled "STUDY ON CHARTERED ACCOUNTS COMPANY" is an independent work done by RAGHUNANDAN S (16YCCFC003) a student of 3rd sem M.com(finance and accounts) of our college during the year 2017 -2018 under guidance of Dr.RAJESH M.V and HOD Dr.NAGARAJU . This project is submitted to Bangalore University in partial fulfilment of the required for the award of M.com (FandA) .Further it is understood that this internship report has not been previously submitted for the award of any degree or any degree or diploma or any title of any institution or university.

R. Nagaraju
DR. NAGARAJU R

DEPARTMENT OF COMMERCE
BANGALORE CITY COLLEGE


PRINCIPAL
PRINCIPAL
BANGALORE CITY COLLEGE
No. 160, Chelikere Main Road,
Banaswadi Outer Ring Road,
Kalyan Nagar (Post), Behind BTS Bus Dep
CHELIKERE, BANGALORE - 560 043

3. KARNATAKA POWER TRANSMISSION CORPORATION LTD

An Internship Report on
“OVERALL STUDY OF ORGANIZATIONAL CLIMATE”

AT

KARNATAKA POWER TRANSMISSION CORPORATION
LIMITED, Kaveri Bhavan, Bangalore

Submitted in partial fulfillment of the requirement of
The Bangalore University for the award of
Master of Commerce (F & A)

BANGALORE CITY COLLEGE



By:

KRUPA.S

(REG.NO. 16YCCFC001)

Under the guidance of:

Prof. RAJESH M V

4 MORGENALL MANAGEMENT CONSULTANT PVT LTD

morgenall

Date: - 9th October 2017
Place: - Bangalore

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms. Vijitha V(Registration No 16YCCFC005) 3rd Semester M.Com(Finance and Accounting) Student of Bangalore City Collage, completed her Internship report in our organization from 1st September 2017 to 30st September 2107. During the period of her internship with us she was found punctual and hardworking.

We wish her all the best in the future endeavors.

Yours Sincerely
MorgenAll Management Consultant Pvt Ltd

Ms. Maqdooma Fathima



Ms. Maqdooma Fathima
Director of Operations

5. MANNAPURAM FINANCE LTD



Manapuram Finance Ltd

{No,14 laggerebridge no.75, 1st floore, Lakshmie
narasimhaiah,swamy nilaaya
Muneshwara layout , Ring road,Banglore

To Whomever it may concern

Dated:08.09.2017

Sub: letter of Internship

Dear Sir/Madam,

This is to certify that Mr.Manu Prasad B.m registration no. 16YCCFC002

A student of M.COM(Financial Analysis) of Banglore city college
undergone Internship Training for a period of one month from 5th –
August -2017 to 4th –September-2017.

During his study he was found to be hard working and sincere.

Thanking You

Manamppuram Finance Limited
Laggere Bridge Branch
75, 1st Floor, Opp. Mathru Hospital
Muneshwara Layout, Laggere
BANGALORE - 560 058.
Ph: 080 - 32557927 / 28372553



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108/09/17

6. VEER-O-METALS PVT LTD

VEER-O-METALS Pvt. Ltd.



Ref. No. : VOM/ GFGC / 3987-17

Date : 27/09/2017

CERTIFICATE

This is to certify that **Mr. SUHAS S.V** (Reg. No. 16YCCFC004) student of Master of Commerce (F&A) student of **BANGALORE CITY COLLEGE, Bangalore.** has completed "**Internship Training**" in our organization from 28th Aug. 2017 to 27th Sep. 2017. He took keen interest in his Training Program.

This Certificate is issued at the specific request of the student who has collected the required information from us for study purpose only.

For VEER-O-METALS PVT. LTD.

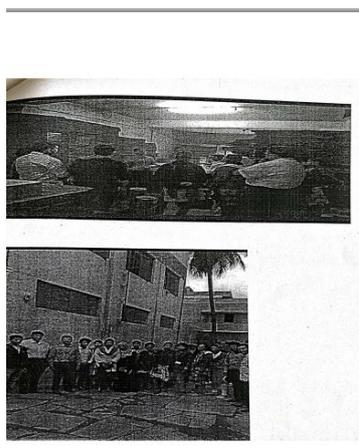
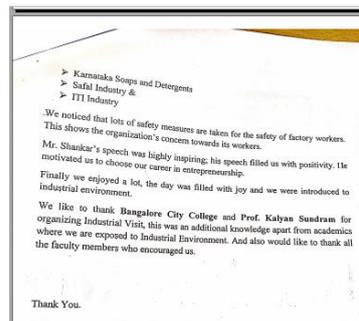
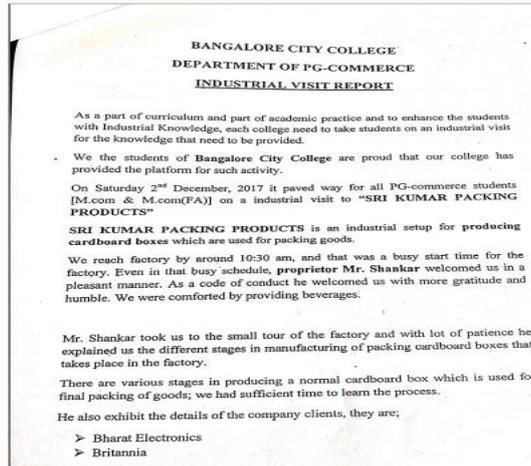


Jorij
Divisional Officer [HRD]



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7, SRI KUMAR PACKING PRODUCTS (2018)



8. UNIBIC COOKIES PVT LTD

INDUSTRIAL VISIT UNIBIC COOKIES PVT LTD

As a part of an Academic our college took us to Industrial visit for final year PG & UG students on March 12th accompanied by Archana Madam, Suchitra madam and Adarsh sir to Unibic Cookies pvt ltd which is located in Hoskur Road. Student group of BBA including M.com, MFA and BBA was united to visit and to get knowledge regarding the industrial activities.

By morning 8 AM we started from the college campus and reached the factory by 11 AM and college provided us with the bus. We got warm welcome from the factory Manager and then he took us inside the factory, we were asked to cover our head as it is one of the safety measures taken by the factory to prevent the spreading of bacteria.

The factory setup was very well organized and each process was setup properly. They took us into various processing units like:

- Mixing of Cookie dough
- Shaping process
- Packing process

We could get more information and could see how workers are working. We roamed around and saw each and every activity in the campus and finally they provided us with the cookies and we also went to the factory outlet where we got cookies at a discounted rate and did some shopping.

Finally we reached college 2 PM.

We would like to thank our Director and management for organizing this industrial visit and we would also like to thank our HOD Mrs. Nazneen who provided us the full support, this event wouldn't have happened without her co-ordination. And we also like to thank our faculty members for there support.

Finally I would like to say that we all had a fabulous day and a memorable one too where in we gained lot of knowledge about the manufacturing process of the company.

THANK YOU



9. CAUVERY EMPORIUM-KSHDCL

Dear Concerned,

I hereby Certify that Santosh K has completed his internship at Cauvery Emporium.

He Demonstrated as a Diligent and truthful, person, his Interpersonal skills outstanding he has been very helpful

We wish him success in his future efforts.

Regards

CA Kishore Kumar G C

General Manager

Finance Department

Cauvery Emporium – KSHDCL.

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CamScanner


General Manager (Finance)
Karnataka State Handicrafts Development
Corporation Limited
(A Government of Karnataka Undertaking)
No. 48, M.G. Road, Bangalore-560 001

10. PERISAVANTHY INVESTMENTS PVT LTD

Mrs. PHILOMENA PERIS
Chairperson & Managing Director



HEAD OFFICE: FA, Spencer Road, Bangalore 560 005 Tel: (980) 55134435361878
E-mail: avanthi@bgl.vstl.net.in
AVANTHY ESTATE OFFICE: Magund post, Chikmagalur Dist: 577160
Tel: (08266) Res 48040 Off 4805448044

Date :11/10/2018

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Ms.Kavitha R** (Reg.No.17YCCFC001) from "Bangalore City College " studying in 3rd Semester M.Com (FA) has successfully completed her "**INTERNSHIP**" on the subject matter of " Organisational Study" in our Organisation from 18th August 2018 to 18th September 2018.

During this period we found her to be sincere, hardworking and dedicated to her work.

Our Best Wishes to her in all her future assignments.


MRS.PHILOMENA PERIS

11 REPORT OF INDUSTRIAL VISIT

Anthem bioscience

Date- 25/03/2015

Prepared by

Amrutha
II MSc(IVsem)
Organic Chemistry
Banglore City College

Submitted to
Head of the Department
Organic Chemistry
Banglore City College

Respected madam

Subject – Report of the one day industrial visit

On receiving letter of permission from Anthem Bioscience, Bangalore students with faculties went on industrial visit to Anthem Bioscience on 25/03/2015. We are assembled in college at 8.00 am and then we went in van and reached biocon at 10.00 am. Members of Anthem bioscience welcomed us at the entrance and allowed to visit the production and R &D department



We observed the HPLC, GC UV and column chromatographic instruments and techniques. We also learned some quality control techniques. Its very interesting, informative and successful visit. We express our thanks to manager of Anthem bioscience and principal of our college for giving this opportunity to visit the industry.

Thanking you

Your's faithfully
Amrutha

REPORT OF INDUSTRIAL VISIT

Date- 20/02/2016

Prepared by

Pushpa N
II MSc(IVsem)
Organic Chemistry
Banglore City College

Submitted to
Head of the Department
Organic Chemistry
Banglore City College

Respected madam

Subject – Report of the one day industrial visit

On receiving letter of permission from Anthem Bioscience, Bangalore students with faculties went on industrial visit to Anthem bioscience on 20/02/2016. We are assembled in college at 8.00 am and then we went in van and reached biocon at 10.00 am. Members of Anthem bioscience welcomed us at the entrance and allowed to visit the production and R &D department. We observed the HPLC, GC UV and column chromatographic instruments and techniques. We also learned some quality control techniques. Its very interesting, informative and successful visit. We express our thanks to manager of Anthem bioscience and principal of our college for giving this opportunity to visit the industry.

Thanking you

Your's faithfully
Pushpa N



13. Biocon

REPORT OF INDUSTRIAL VISIT

Date- 23/03/2018

Prepared by

Mallika A R
II MSc(IVsem)
Organic Chemistry
Banglore City College

Submitted to
Head of the Department
Organic Chemistry
Banglore City College

Respected madam

Subject – Report of the one day industrial visit

On receiving letter of permission from Biocon, Bangalore students with faculties went on industrial visit to biocon on 23/03/2018. We are assembled in college at 8.00 am and then we went in van and reached biocon at 10.00 am. Members of biocon welcomed us at the entrance and allowed to visit the production and R &D department.



We observed the HPLC, GC UV and column chromatographic instruments and techniques. We also learned some quality control techniques. Its very interesting, informative and successful visit. We express our thanks to manager of biocon and principal of our college for giving this opportunity to visit the industry.

Thanking you

Your's faithfully
MALLIKA A R

14. Janashree News



Date: 12-10-2016

Certificate of Completion of Internship

This is to certify that Mr. Manjunatha G student of "Bangalore City College" has successfully completed his Internship from 12th July, 2016 to 12th Sep, 2016.

During the tenure, He has worked in all departments of News Production, Graphics, including reporting. His performance has been satisfactory.

We wish him all the very best for his future.

Thanking you,

For Yash Broadcasting Industries Pvt. Ltd

A circular stamp for Yash Broadcasting Industries Pvt. Ltd, Bengaluru, with a handwritten signature and the date '12/10/16' over it. The text 'Authorized Signature' is visible at the bottom of the stamp.

A circular stamp for Bangalore City College, Bengaluru, with a handwritten signature and the date '12/11/16' over it.

5th & 6th Floor, Salarpuria Tower - I Hosur Road, Koramangala, Bengaluru - 560 095
Phone : 080 4933 5555 Fax : 080 4933 5555

15. THE HINDHU

THE HINDU

Proprietors : KASTURI & SONS LTD.

19 & 21, Bhagwan Mahaveer Road, (Infantry Road) Bengaluru - 560 001.

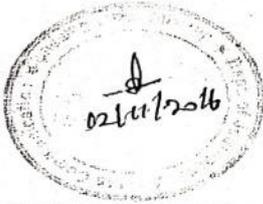
TO WHOM IT MAY CONCERN

This is to certify that Ms. Salma Shafiulla, a student of M.A. (Mass Communication and Journalism) at Bangalore City College, Bengaluru, did her internship with The Hindu (Editorial), Bengaluru, from August 11, 2016 to October 11, 2016.

A Thomas

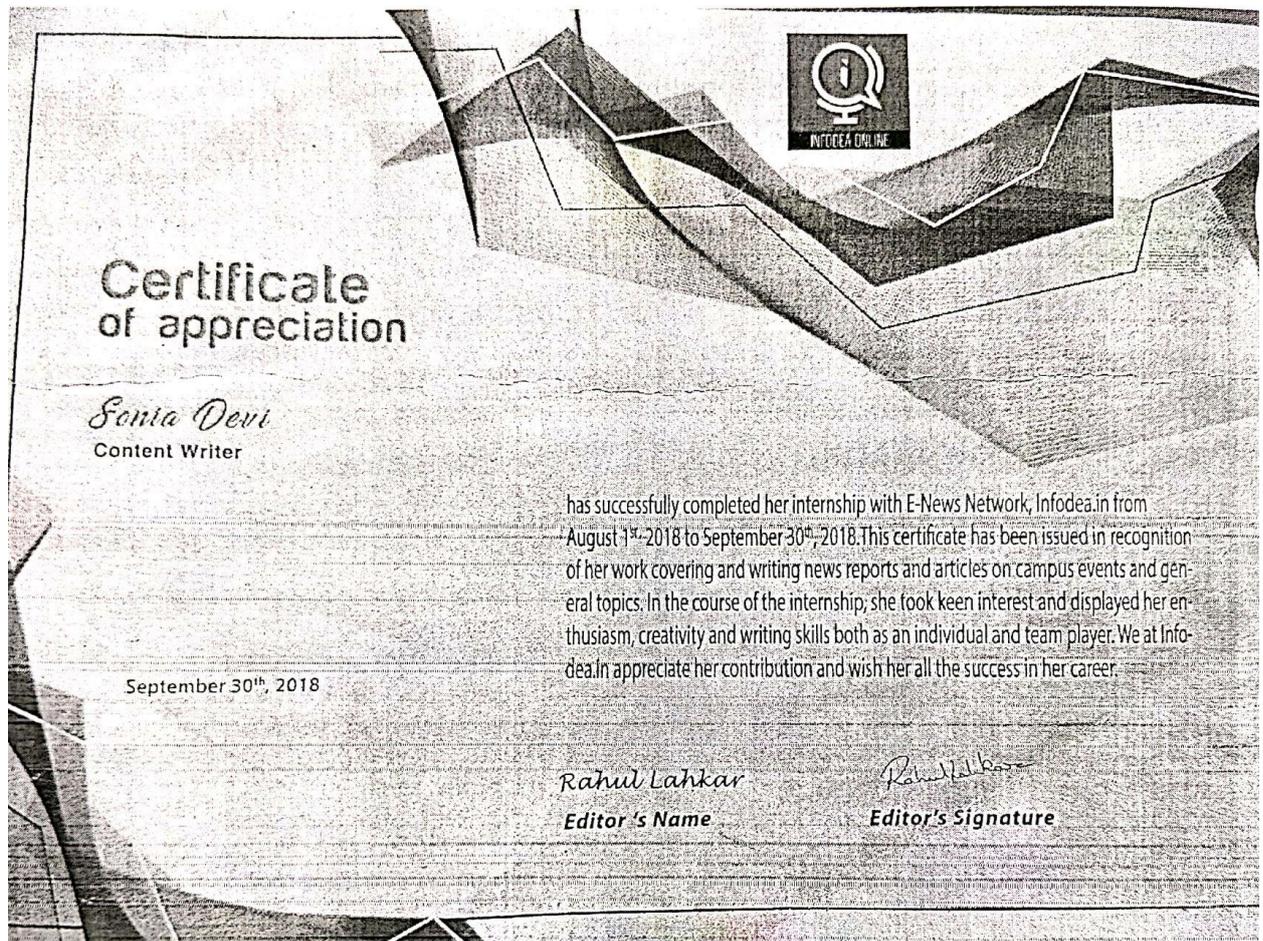
**Anjali Thomas
Deputy Editor (Urban Affairs)
The Hindu,
Bengaluru**

October 11, 2016



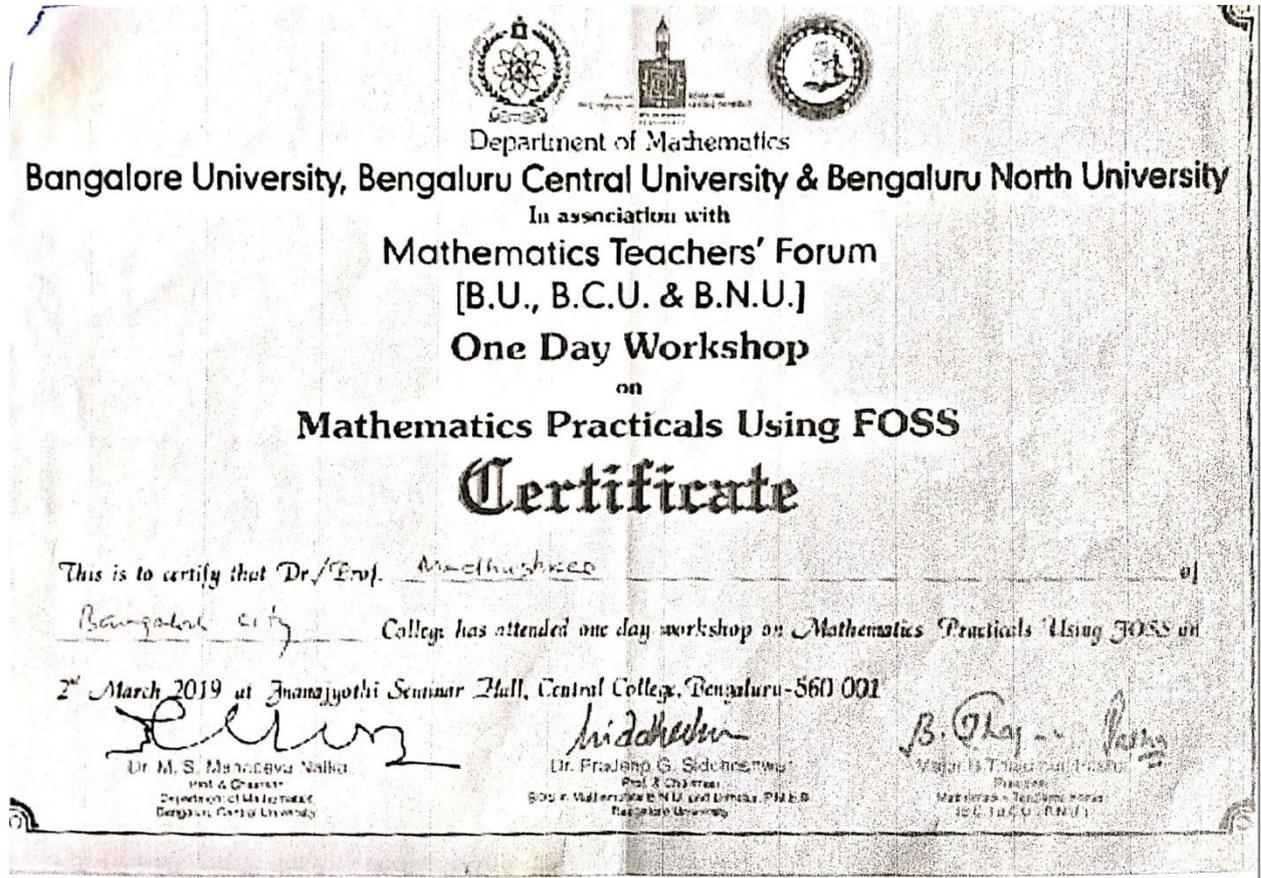
TELEPHONE : 22864240 □ FAX : 22864052
Corporate Office : Kasturi Buildings, 859 & 860, Anna Salai, CHENNAI-600 002.

16. E-NEWS Network ,infodea.in



17. Mathematics Practicals Using FOSS

Bangalore University, Bangalore Central University and Bangalore North University



18. National conference on Recent Trends and Exploration in Mathematics

The National College, Karnataka Science and Technology Academy, Trans Disciplinary Research Centre and B.V.Jagadeesh Science Centre

CENTENARY CELEBRATIONS OF THE NES OF KARNATAKA

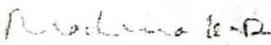
 **The National College**
Autonomous
Jayanagar, Bangalore-560 070
Accredited 'A' Grade by NAAC

 **Karnataka Science and Technology Academy**
Department of Science and Technology, Government of Karnataka
Trans-Disciplinary Research Centre
The National College, Basavanagudi and The Florida International University, U.S.A.
B.V. Jagadeesh Science Centre
The National College, Jayanagar, Bangalore-560 070

*National Conference on
Recent Trends and Explorations in Mathematics*
4th October 2018

CERTIFICATE

This is to certify that Prof./ Dr./ Mr./ Ms./ Madhusree. M. R. has participated in National Conference on "Recent Trends and Explorations in Mathematics" and ~~Chairman / Deliverer / Lecturer~~ Presented a paper titled _____ held on 4 October 2018 organized by Postgraduate Department of Mathematics, The National College, Jayanagar, Bangalore-70.


Dr. (Mrs.) Madhura K.R.
Organizing Secretary
Coordinator, PG Department of Mathematics


Dr. B.K. Parineetha
Principal


Prof. K.S. Nataraj
Director,
B.V.J. Science Centre


Dr. A.H. Rama Rao
President
NES of Karnataka

19. Basic Epidemiology



**National Institute of Veterinary Epidemiology and Disease Informatics
(NIVEDI)**
Yelahanka, Bengaluru- 560 064

CERTIFICATE

This is to certify that Ms. Deepti Kiran participated in the Training Course on “Basic Epidemiology” Organized at National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI), Bengaluru in collaboration with Centers for Disease Control and Prevention (CDC), USA, from 2nd - 6th February, 2015.

 (Divakar Memadri) Course Director	 (Kayla Laserson) Director, CDC India	 (H. Rahman) Director
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20. Shriram Institute For Industrial Reasearch



BANGALORE CITY COLLEGE

Imparting Quality Education

**A Report on Industrial Visit
To
Shriram Institute For Industrial Reasearch**

On

08-11-2016

By

ANUSHA.L 3rd Sem M.Sc Biotechnology

Accompanied by

Organized by:

Bangalore City College

Bangalore - 43 ***Candidate declaration***

I hereby declare that the report entitled Industrial visit to “*Shriram Institute and Industrial Research*” submitted to **Head of Department of M.Sc. Biotechnology, Mrs. Priya John** in **Bangalore City College**, Bangalore, Karnataka.

MISS ANUSHA

ACKNOWLEDGEMENT

I acknowledge the following people for their dedication and sincere efforts to make our successful industrial visit to **SHRIRAM INSTITUTE AND INDUSTRIAL RESEARCH**.

I feel immense pleasure in thanking **Mr.T.N.Murthy, chairman** of Bangalore City College for support to carry out industrial visit from the college.

I am also indebted to **Mr.T.Prasad Rao, director** of Bangalore City College for his support in our course of this industrial visit.

I avail this opportunity to express my deepest sense of gratitude and sincere thanks with respectful regard to **B.Laxma Reddy, principal** of Bangalore City college, conducted industrial visit for us.

I am thankful to **Mrs. Priya John(HOD)** of **M.Sc.Biotechnology Department** for conducting such a nice industrial tour.

I thank **Dr. K.J.Balasubramani** senior consultant at sriram institute for his guiding. Finally I want to thank **shriram institute** , for giving us this opportunity and all the faculty members of PG Biotechnology department. I am very thankful to all of my friends and faculty for their cooperation.

Place :**Bangalore**

Date :**08-11-2016**



WELCOME TO SRIRAM INSTITUTE AND INDUSTRIAL RESEARCH

OBJECTIVE OF VISIT

- To know the industrial equipments

- To have a better understanding of how Industry and academy works.

- Exposure to better industrial and business practices in progressive economies.

- Interaction with Guides and other person from the industry.

- Know business skills in a global context encouraging cultural interaction to learn better coordination between various Departments.

OBJECTIVE OF SHRIRAM INSTITUTE AND **INDUSTRIAL RESEARCH**

- The main objective of SRI is providing support by way of industrial research and development and technical services of various types to the industry.

- The mandate and vision for the Institute as given by the visionary founder Lala Shri Ram was quite clear and straight forward: “Institute would operate as a not-for-profit and completely self-sustainable organisation”.

- This mandate was basically meant for ensuring the truly independent and completely unbiased research facility dedicated to all concerned but mainly to the industry.

- The importance of indigenous R&D for the growth of the industry and consequently the economic development of the country

INTRODUCTION

- ❖ Shriram Institute for Industrial Research started functioning in the year 1950. In 1981, Bangalore unit was started in a modest way and in 1984 it was fully operational with the state-of-the-art laboratory facilities.
- ❖ SRI's Bangalore branch today, is working on the same philosophy as SRI Delhi and takes care of the research and analytical needs of the Southern part of India.
- ❖ Since 2006, SRI's Gurgaon unit has also become operational as a Sample Collection Centre to start with.
- ❖ The R&D experience and expertise of the Institute has been growing with time and very much in accordance with the trends of the industry.
- ❖ With the growth and change in the requirements of the Indian industry, Shriram Institute has been diversifying its activities into various newer areas to support the upcoming technical needs of the industry.

SHRIRAM INSTITUTE : OPERATIONAL DIVISIONS

Over the years, various divisions of SRI have been set up to take care of the different areas of activities and these divisions have seen a consistent growth with time.

- ❖ Material Sciences
- ❖ Bio-Sciences including Toxicology
- ❖ Analytical Sciences
- ❖ Shriram Applied Radiation Centre (SARC)
- ❖ Environment Protection

❖ Calibration and Energy Labeling

MATERIAL SCIENCE DIVISION

Material Science Division (MSD) is engaged in the research and development for various types of materials including polymers and polymeric materials. The division undertakes time-bound contract research projects dealing with various aspects of products, processes and applications. The services offered by SRI cover all stages essential for entrepreneurial growth starting from identification, assessment, development and demonstration to ensure commercialization of desired product. The division develops contemporary technologies in the context of globalization and hi-tech industrial competition and helps to upgrade the existing ones. How the scientists of SRI have been working for the industry can be appreciated from the role being played by SRI in the growth of the industry as shown below. The expertise exists for materials for various industrial applications.

The basic services offered include :

- Identification of new products, applications, processes and technologies
 - Development of products, processes and technologies
- Improvements in the existing products & processes and making them cost effective by adopting alternative routes or using alternative raw materials
- Scale-up studies to take up the development work from the lab-scale to the commercial scale
- Providing technical help in preparation of the data sheet for product application and material safety data sheet
- Providing technical opinion report on the existing products as well as processes by characterisation and performance evaluation.
 - Product differentiation etc.

Core Research Areas :

- ❖ Polymeric products
 - ❖ Herbal Products
 - ❖ Composites
- ❖ Renewable Resources
 - ❖ Organic Synthesis
- ❖ Radiation based Technologies
 - ❖ Specialty Chemicals

Waste Utilization MATERIAL SCIENCES : GROWTH PATH PVC PC PE
 PVC Biocompatible Polymers Biomedical Applications Textile Optical Plastics
 Metal Containing Polymers Ecofriendly PP Modifications Known for Material
 Research; optical plastics, radiation processing, innovative products &
 performance chemicals Focus Research Areas :

- ❖ Nanotechnology
 - ❖ Synergistic formulations
 - ❖ Packaging products
 - ❖ Functional polymers
 - ❖ Optical plastics
 - ❖ Surfactants
 - ❖ Hygiene products
- ❖ Bio-diesel Polymeric Products

The research studies have been conducted on the following polymeric materials for which projects are being pursued regularly: Polymer blends /alloys; composites; adhesives, coatings & lacquers; healthcare & biomaterials; process optimization; plastic waste utilization and modification of existing processes and import substitution Organic Synthesis Projects related to organic synthesis are regularly being undertaken to develop novel materials including polymers with desired

characteristics. The research in this area includes developing alternative processes and finding out the alternative raw materials to make the product and process cost effective. Some of the recent projects undertaken with respect to organic synthesis are:

- Synthesis of metal containing polyacrylates for optical applications for development of nano-plastics with excellent physico-mechanical and optical properties.
 - Synthesis of high refractive index novel polythiols for colorless, impact resistant, transparent and bubble free lenses.
 - Synthesis of polyglycolic acid for surgical absorbable suture applications
 - Synthesis of biodegradable polymers
 - Derivatives of natural products such as carbohydrates.
 - Development of process technologies for several biomedical applications such as, Bone Cement ; Dental Cement ; Blood Bag ; CAPD System Polymer Composites Some of the polymer composites developed include:
 - Fire retardant Jute composite : A wood substitute composite of Jute replacing polyester and polystyrene with natural Euphorbia latex coagulum
 - Mesta fibrecomposite : Composites of polypropylene/mestafibre for automobiles.
 - Insulated Laminated Boards : Fire retardant and antistatic laminates from waste ceramic fibre and polyester.
 - Anti-fungus, anti-rodent PE compositions : for lamination on Jute fabric
- Adhesives and Coatings SRI has been working in the field of adhesives and coatings.

Some of the adhesives and coatings developed are:-

- Water based adhesive: For tyre retreading in the form of a stable aqueous dispersion.
 - Hot melt adhesive: For bookbinding application.
 - Surface coating formulations for wood laminates

- Water repellent coating for glass: Highly effective water and dust repellent coating formulation using indigenous raw materials, for window panels for high rise buildings.
- Road marking paint : Having long lasting, luminescent, weather and friction resistant properties

CHARACTERIZATION AND STRUCTURE ELUCIDATION OF MATERIALS

A. Characterisation of polymeric materials by :

- ❖ Physical & mechanical properties
 - Hardness; Density; Dimensional stability; Tensile strength; Flexural strength; Impact strength & Compressive strength
 - Young's Modulus
- ❖ Flammability studies
 - Flame retardance (UL)
 - Limiting Oxygen Index (LOI)
 - Toxicity index
 - Smoke density
- ❖ Thermal properties by means of :-
 - Differential scanning calorimetry
 - Thermal ageing
 - Thermo-gravimetry
 - Melt flow index
 - Vicat softening point
 - Melt elasticity parameters
 - Heat deflection temperature
- ❖ Electrical properties
 - Dielectric constant
 - Dissipation factor
 - Volume resistivity
 - Surface resistivity
 - Breakdown voltage
- ❖ Life cycle analysis
 - Xenon Arc weathering

- UV-Condensation weathering
- ❖ Migration studies Packaging materials for Food; Drugs and Pharmaceutical Products. B. Structure Elucidation of non-polymeric materials
- ❖ Chemical profiling of herbal extracts, Ayush products and various synthetic materials
- ❖ Reverse engineering of specialty formulations meant for industrial applications Development of Methods and Validation of developed methods of Analysis
- ❖ Expertise to develop method for an existing as well as new product ❖ Expertise to validate an already developed method Conducting Product Differentiation by:
 - ❖ Performance evaluation and weathering studies for various materials such as :
 - EPDM/PVC in solar cells
 - Neoprene coated nylon fabric
 - EPDM/PP for automotive
 - HDPE woven sacks
 - Weather resistant PVC for cooling
 - Color fastness of coatings & textiles towers Polymer Compounding Based on the desired performance criteria and applications, special polymer compounds have been designed. Sufficient experience and expertise exists for compounding of various resins viz. PVC, PP, PE, PS, ABS, PC and rubber blends with various additives such as plasticizers, stabilizers, lubricants and specialty additives etc. for development of various products including:
 - Cables for high performance applications
 - Products for medical and biomedical
 - PVC Flooring for household and applications such as Body Warmer industrial applications Bags, Catheters, Blood Bags, CAPD
 - PVC Shoe soles with high abrasion Bags etc. resistance
 - Automotive components
 - Products for specialty applications & consumer items such as cling films, anti-rodent & anti-termite films etc. Polymer Processing Optimization of process parameters of various polymeric materials such as, Commodity plastics; Engineering plastics; Rubber compounds; Thermosets;

Thermoplastic elastomers & Polymeric blends. Polymer Modifications The polymers are modified as per the needs for their applications using methods like:

- Compounding; Grafting; Alloying & blending: and Surface modification ●
- Products for medical and biomedical applications such as Body Warmer Bags, Catheters, Blood Bags, CAPD Bags etc.
- Products for specialty applications & consumer items such as cling films, anti-rodent & anti-termite films etc. A LIST OF AVAILABLE TECHNOLOGIES
- Blood Bag : Technology for blood bags meeting ISO 3826
- CAPD System for Continuous Ambulatory Peritoneal Dialysis
- Production of bone cement and bone substitute
- Disposable Vaginal Speculum : Disposable hygiene device replacing metallic one
- Body Warmer : A body warmer with repetitive usage
- Low cost disposable medical hygiene products : A unique hygiene product
- Synthesis of novel polythiols : High refractive index material
- Polyglycolic acid (PGA) based synthetic absorbable sutures Based on Glycolic acid
- Cling Film : For industrial and food packaging applications
- Rodent Repellent PE compositions for storage of grains in go-downs.
- Abrasion resistant low cost shoe soles based on PVC/PU blends and PVC/NBR blends
- PVC compositions for floor tiles
- High performance Cables PVC and PE based compositions crosslinkable by electron beam:
- Process Engineered Fuels (PEFs) from plastic wastes and agri wastes
- Technology for road construction using plastic waste MAJOR R&D PROJECTS SUCCESSFULLY COMPLETED
- Anti-oxidants from natural sources
- Epoxidised oil from plant seeds
- Cardanol from cashew nut shell liquid
- Shelf-life enhancement of fruits
- Detoxification of aflatoxin in peanuts
- Epoxy based composites by electron beam curing process

- Wood polymer composites
- Remediation of polychlorinated biphenyls (PCBs)
- Surface coating for wood laminates
- Treatment of city sewage by radiation
- PVC compounds for wire and cable industry
 - Coloration of Gem-stones
- Ordinary portland cement from flyash
- Tiles from ceramic fiber waste

ANALYTICAL SCIENCES DIVISION (ASD) The Analytical Science Division, during its initial phase, started with quality control of materials. The major focus was on macro-analysis, which was mainly based on the various parameters of the materials and standardisation of methodologies for quality control of raw materials and finished products. With the changing times and growing awareness about the quality, there has been a major shift from macro analysis to microanalysis which mainly involves the determination of various residues, nutrients, toxins, adulterants and impurities, generally present at very low levels of ppm or ppb. Today with globalisation and implementation of WTO, SRI is fully equipped in terms of both, capacity and capability to meet the regulatory requirements of various international authorities.

At present, SRI is providing the world class analytical services to the industry in the following areas:-

- Product and Process Development
- Minerals and Ores
- Automobiles
- Petrochemicals and Refineries
- Quality Control & Quality Assurance
- Engineering and Infrastructure
- Environment Protection and Calibration Pollution Control
- Toxicology and Pharmacology
- Electricals
- Drugs and Pharmaceuticals
- Consultancy and Quality Improvement
- Herbal and Traditional Medicines
- Inspection
- Food Processing

- Method Development and Validation
- Packaging Materials
- Residue Analysis
 - Chemicals and Agrochemicals Focus Areas of Analytical Sciences
- ❖ Quality evaluation of materials for infrastructure development
- ❖ Quality of products derived from petroleum resources as well as renewable resources
- ❖ Bench marking of products for quality and performance
- ❖ Development of methods for new materials.

SHRIRAM APPLIED RADIATION CENTRE (SARC)

Shriram Applied Radiation Centre was established in 1986 in collaboration with Bhabha Atomic Research Centre (BARC), Board of Radiation and Isotopes (BRIT), Atomic Energy Regulatory Board (AERB) and Department of Atomic Energy (DAE), Mumbai.

The Division started with Co 60 source of 100 KCi which was gradually upgraded to 200 KCi, 500 KCi respectively and today it has a source strength of 800 KCi.

The source is mainly being used for the sterilization and disinfestation of:-

- ❖ Surgical , medical and pharmaceutical products
- ❖ Ayurvedic Medicines
- ❖ Spices and other products
- ❖ Stones and Jewels

QUALITY ASSURANCE DIVISION (QAD)

Quality Assurance Division is one of the important divisions of SRI. QAD ensures quality services to the customers. The main objective is to implement quality policy and monitor customer satisfaction.

RADIATION PROCESSING : GROWTH PATH Focus Areas of QAD

- ❖ To conduct the inter/ intra laboratory checks and quality checks
- ❖ To participate in proficiency testing programmes and to organise PT programmes for quality analysis / testing
- ❖ To resolve the customer's complaint / observation

- ❖ To collect the customer's feed back in order to strengthen Institute's relations with customers
- ❖ Periodic training and upgradation of competency of personnel
- ❖ Maintenance of quality systems

ACCREDITATION

- ❖ SRI is ISO 9001 certified for its total activities by DNV, The Netherlands.
- ❖ SRI laboratories are accredited by the National Accreditation Board for Testing & Calibration Laboratories (NABL) in the fields of Chemical, Mechanical, Biological and Calibration (thermal, mass, dimension, volume, viscosity, pressure & vacuum).
- ❖ NABL accreditation for on-site calibration (thermal and mass)
- ❖ SARC facility is ISO 13485 and ISO 11137 certified by DNV Netherlands. It is also approved by Atomic Energy Regulatory Board of India, and by the Drug Control Authority, Delhi.
- ❖ The Radiation measurement Laboratory of SARC is accredited by Atomic Energy Regulatory Board (AERB) for measurement of residual radioactive content in commodities.
- ❖ Approval from various State Pollution Control Boards
- ❖ Approval of Environmental laboratories from Ministry of Environment and Forests under Environment Protection Act (EPA)
- ❖ Approval from Central Pollution Control Board for calibration of Ambient Air Monitoring Station on site
- ❖ Approval from Delhi Pollution Control Board for Hazardous Waste
- ❖ In petroleum sector, SRI has special accreditation from:-
 - Director General of Civil Aviation- Aviation fuels
 - Director General of Safety of Mines- Hydraulic fluids

LIST OF IMPORTANT EQUIPMENT

- Gas Chromatographs (GC) equipped with FID, ECD, NPD & TCD detectors, Purge & Trap and Auto Head Space Sampler

- High Performance Liquid Chromatographs equipped with Auto sampler, RI, PDA, UV and Fluorescence Detectors and Gel Permeation Chromatography software
- Liquid Chromatograph/ Mass Spectrometer/ Mass Spectrometer(LC/MS/MS) equipped with Auto Sampler
- Gas Chromatograph / Mass Spectrometer/ Mass Spectrometer (GC/MS/MS) equipped with Auto Sampler
- Atomic Absorption Spectrophotometer (AAS)
- Inductively Coupled Plasma- Optical Emission Spectrophotometer (ICP-OES)
- CHNSO Analyzer equipped with auto sampler
- High Performance Thin Layer Chromatograph (HPTLC)
- UV-Visible Spectrophotometer
- Infra Red Spectrophotometer
- Spectrofluorometer
- Thermo Gravimetric Analyser - Differential Thermal Analyser (TGA-DTA)
- Digital Scanning Calorimeter (DSC)
- Automated Solid Phase Extractor (SPE)
- Microwave Digester
- Turbovap Concentrator
- Universal Tensile Machine
- Melt Flow Index Tester
- Izod Impact Tester
- Heat Distorsion Temperature / Vicat Softening Temperature Apparatus ●
- Density Gradient Column
- Dart Impact Tester
- NOIR based CO and CO₂ Analyser
- Hazdust Monitor
- Noise Analyser System 824
- Hydrocarbon Leak Detector
- Total Hydrocarbon Analyser
- Automatic Weather Station
- Image Analyser
- Coating Thickness Tester
- Universal Tensile Machine for Metals

- Impact Machine for Metals
- Cold Filter Plugging Point
- Four Ball Tester
- Tandelta Resistivity Meter
- Breakdown Voltage Tester Unit
- Foam Indentation Hardness Test Apparatus
- ShoreA/ShoreD Test Apparatus
- De-Matia Flexing Machine
- Viscosity Bath
- Pipe Opacity Tester
- Elmendorf Tear Tester
- IRHD Hardness Tester
- Suntest CPS+
- Atlas UV Condensation
- Xenotest Beta LM
- Oxygen Index Tester
- Smoke Density Test Apparatus
- HCL Gas Generation Test Apparatus
- Flammability Tester
- Toxicity Index Test Apparatus
- A.A.T.C.C Crock Meter
- Bursting Strength Tester (Mullem Type)
- Bursting Strength Tester (Air Pressure Type)
- Bursting Strength Tester (Hydraulic Type)
- Pilling Tester
- Refractometer
- ADPI Scotch Particle Determination
- ALVEO Consistograph
- Water Activity Meter
- Lovibond Tintometer
- Pipe Impact Tester 1 & 2
- Hydraulic Pressure Testing Machine
- Thermal Stability Bath
- Pipe Reversion Bath
- Compression Testing Machine

- Core Cutting Units
- Ultrasonic Pulse Velocity Unit
- Ferrosan
- Stone Polishing Value Machine
- Skid Resistance Tester
- Marshall Stability Unit
- Digital Asphalt Furnace
- Abrasion Machine
- Aggregate Impact Unit
- Heat of Hydration Unit
- WPC/Concrete Permeability Units
- Thermal Conductivity Unit (Refractory)
- Specific Ion Analyser
- X-Rite for Paints

EXPERIENCE FROM THE INDUSTRIAL VISIT

- Interaction with Guides and other person from the industry is motivating.
- 'See & know' is better motto than 'read & learn'.
- It was a good learning experience.
- We have visited the entire process department.
- The industrial visit helps how to translate theory into practical.



21 Credora life sciences



BANGALORE CITY COLLEGE

Imparting Quality Education

**A Report on institute Visit
To
Credora life sciences**

On

11-11-2016

By

ANUSHA.L 3rd Sem M.Sc Biotechnology

Accompanied by

Organized by:

Bangalore City College

Bangalore - 43

Candidate declaration

I hereby declare that the report entitled Institute visit to “credora life sciences” submitted to **Head of Department of M.Sc. Biotechnology, Mrs. Priya John** in **Bangalore City College**, Bangalore, Karnataka.

MISS ANUSHA

ACKNOWLEDGEMENT

I acknowledge the following people for their dedication and sincere efforts to make our successful institute visit to credora life sciences

I feel immense pleasure in thanking **Mr.T.N.Murthy, chairman** of Bangalore City College for support to carry out institute visit from the college.

I am also indebted to **Mr.T.Prasad Rao, director** of Bangalore City College for his support in our course of this institute visit.

I avail this opportunity to express my deepest sense of gratitude and sincere thanks with respectful regard to **B.Laxma Reddy, principal** of Bangalore City college, conducted institute visit for us.

I am thankful to **Mrs. Priya John(HOD)** of **M.Sc.Biotechnology Department** for conducting such a nice institute visit

Finally I want to thank **credora life sciences** , for giving us this opportunity and all the faculty members of PG Biotechnology department. I am very thankful to all of my friends and faculty for their cooperation

Place :Bangalore

Date :11-11-2016

OBJECTIVE OF VISIT

- know To the industrial equipments
- To have a better understanding of how Industry and academy works.
- Exposure to better industrial and business practices in progressive economies.
- Interaction with Guides and other person from the industry.
- Know business skills in a global context encouraging cultural interaction to learn better coordination between various Departments.

INTRODUCTION

- credora life sciences has a vast range of biotechnology services ,DNA sequencing services,microbial identification service ,16s and 28s DNA/RNA sequencing services ,bioinformatics services ,DNA testing service ,paternity test service ,forensic analysis services etc.



- Credora undertake a vast range of client specific services as per the requirements and feasibility .
- Provide training and customized solutions for research organization, universities, pharma, health care, biotech and agricultural industries
- Pools of experts have a deep understanding on the various tools and algorithms in bio & chemo-informatics, which help us to provide better solutions .

Credora have divided their service in the following sections:

- **Biotechnology and molecular biology services:**The molecular biology division is a full- service contract research group specializing in a wide range of genomic services.their fundamental approach is to provide complete service solutions.

- **Microbiology services** : This division serves a range of customers in the pharmaceuticals, cosmetics, food and water, biotechnology and medical devices industries.
 - Specializing in microbiology and toxicity testing that meets international regulatory standards including the coveted ISO.
 - Services included sterility testing, determination of bioburden on products, Endotoxin validation of sterilization process. The lab operates a specially designed and engineered facility for the testing of Mycoplasma in cell lines and biotherapeutics.
-
- **Cancer and cell biology:** Cancer screening, molecular cytogenetic studies and diagnosis are the highlighted parts of our portfolio.
 - These tests present numerous advantages over classical methods such as microbial, serological, and histological techniques. They are cost effective, more accurate and sensitive than the conventional methods. Advances in molecular biology have led to an explosion in genetics.
 - On a daily basis a gene association with disease is identified. Scientists are laying the foundation for an exciting, advanced concept of predictive and diagnostic medical testing. Molecular diagnosis for various diseases is now used by many physicians to define the health and lifestyle management for their patients.
 - Credora is striving to bring the molecular diagnosis for the betterment of the people of this region.
-
- **Bio Informatics Services:** We are engaged in offering Pharmacogenomics Services for various research purposes. The Pharmacogenomics services are provided with the aid of sophisticated technologies to ensure high precision and deduction of in-depth information.
 - Our Pharmacogenomics Services have Comprehensive Mutation coverage.
 - So whether you are researching for somatic or Germ-line mutations, our experience can find the mutations, providing answers to your questions.

- **DNA Forensics and DNA Testing Services:** A wide range of testing services assists law enforcement agencies, private investigators, and legal professionals in finding answers, administering justice, and ensuring a safe, secure environment for everyone.

Our forensics team provides a comprehensive range of services including STR, Y-STR, mtDNA and mini-STR casework and forensic paternity. We also offer case review and consultation services to defense attorneys who may seek a second opinion on cases previously tested by other laboratories

EXPERIENCE FROM THE INSTITUTE VISIT

- Interaction with Guides and other person from the industry is motivating.
- See & know' is better motto than 'read & learn'.
- It was a good learning experience.
- We have visited the entire process department.
- The institute visit helps how to translate theory into practical.

27. Indo American Hybrid Seeds Company

- Developing hybrid seeds that support various agro-climatic conditions, **Indo American Hybrid Seeds India Pvt Ltd in Banashankari 2nd Stage** has been playing a superb role since 4th of November, 1965. Its major focus being exporting high quality seeds to the American market. Developing seeds for flowering plants, vegetables, ornamental plants and crops, IAHS has been successfully catering to the domestic and international markets.
- The organization has a highly professional research and development team that develop the products based on the needs of the farmers belonging to various parts of the country.

INDUSTRY TYPE

- They produce rice, maize, sweet corn, tomato and hot pepper. They also develop the various disease resistances so as to protect the seeds from damage and infestation.
- Service offered:
- Indo American Hybrid Seeds India Pvt Ltd in Bangalore is spread over acres of land with adjoining R&D centre and other facilities. Meticulous planning and procedures are involved into the production of seeds before they are despatched to the farmers across the country and abroad.



Experience from the visit:

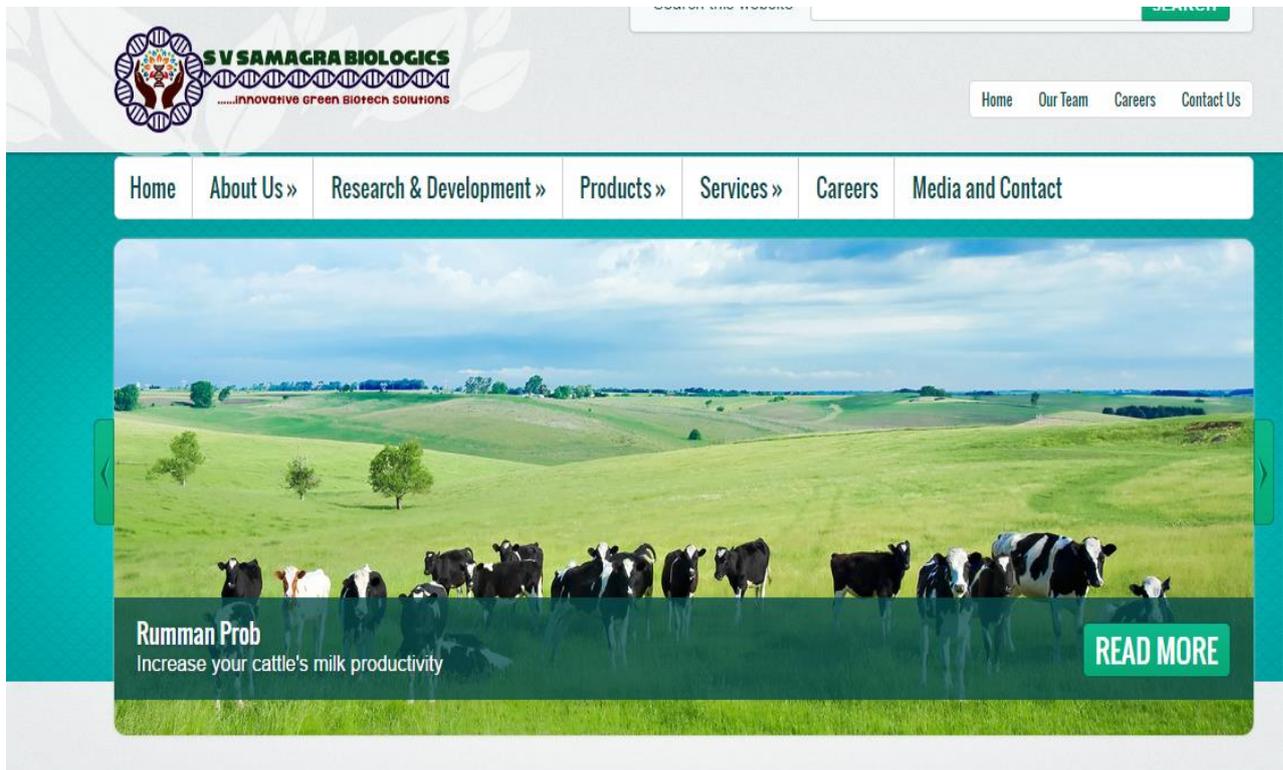
- We visited Indo American hybrid seed company on 24-4-2019,
- We understood the mechanism of Vegetative reproduction uses plants parts such as roots, stems and leaves. In some plants seeds can be produced without fertilization and the seeds contain only the genetic

material of the parent plant. Therefore, propagation via asexual seeds or apomixis is asexual reproduction but not vegetative propagation

- We also got the knowledge how plants have a number of mechanisms for asexual or vegetative reproduction. Some of these have been taken advantage of by horticulturists and gardeners to multiply or clone plants rapidly. Humans may utilize these processes as propagation methods, such as tissue culture and grafting.
- We would like to thank HOD of department Mrs Priya John and Mr Kiran r to give this opportunity to visit this seed industry.



**23. INDUSTRIAL REPORT
ON
S V Samagra Biologics LLP**



SUBMITTED BY:

**DEPARTMENT OF BIOTECHNOLOGY, MICROBIOLOGY
BANGALORE CITY COLLEGE,
BANGALORE- 560 043.**

Introduction

S V Samagra Biologics Lp is a Limited Liability Partnership firm incorporated on 29 April 2016 and S V Samagra Biologics Lp's LLP Identification Number is (LLPIN)AAG-2565. It is registered at Registrar of Companies, Bangalore. Its total obligation of contribution is Rs. 100,000. its registered address is Old Sterling Building, Kadayarapanahalli, BK Halli Post, Jala Hobli, Near Aerospace SEZ Bangalore North Bangalore KA 562149 IN

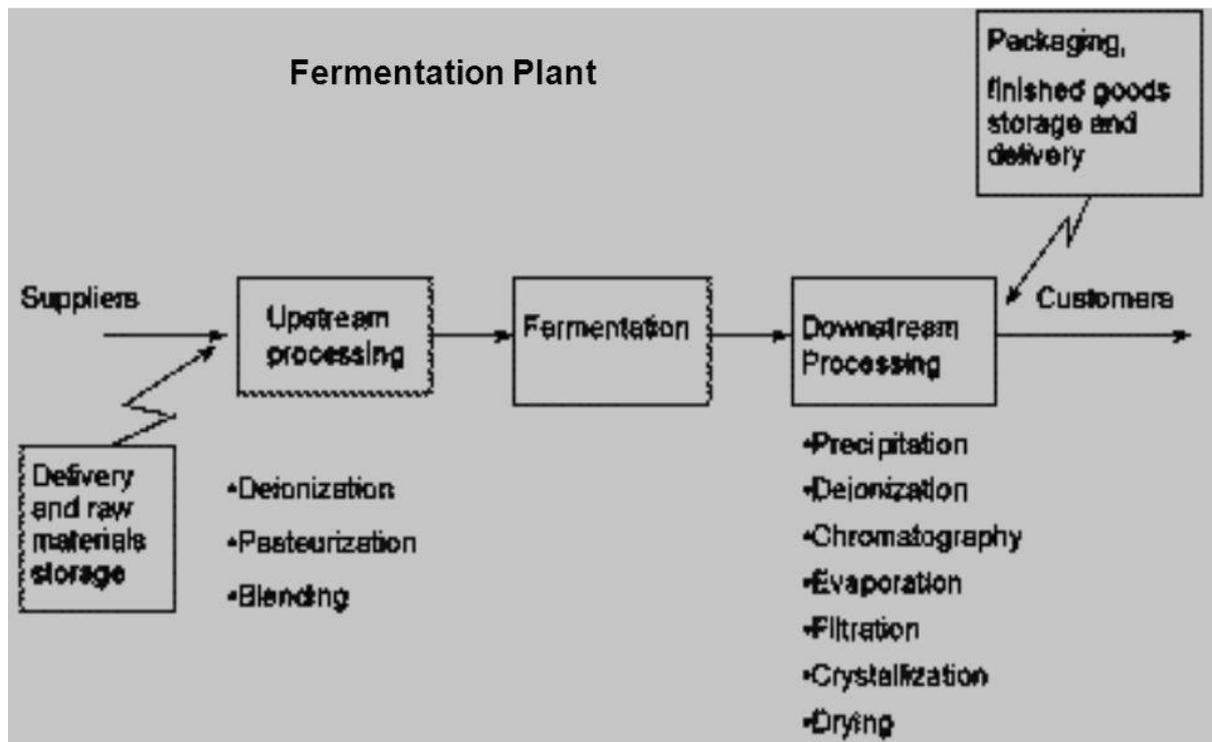
Designated Partners of S V Samagra Biologics Lp are Venkatesh Gnana Srihari and Yadav Egi Janardhan.

INDUSTRY TYPE

Activities Agriculture, Hunting and related Service activities

Overview of Biomass production:

An overview of a typical industrial fermentation process and the movement of materials through a typical fermentation plant are shown in the following figure:



Types of Strains which were used to produce biomass:



PRICE LIST OF PROBIOTIC STRAINS PER KILOGRAM

SL.NO	NAME OF PROBIOTIC STRAIN	CAT. NO	Price/Kg 6 billion CFU/g	Price/Kg 10 billion CFU/g	Price/Kg 20 billion CFU/g
1	Aspergillus niger	SVSB001	240	340	440
2	Aspergillus oryzae	SVSB002	240	340	440
3	Azotobacter (between 2 to 6 Billion)	SVSB003	320		
4	Bacillus mesentericus	SVSB004	230	320	600
5	Bacillus megatherium	SVSB005	230	320	600
6	Bacillus polymixa	SVSB006	230	320	600
7	Bacillus thurengiensis	SVSB007	230	320	600
8	Bacillus amyloliquefaciens	SVSB008	230	320	600
9	Bacillus pumilus	SVSB009	230	320	600
10	Bacillus mycoides	SVSB010	230	320	600
11	Bacillus firums	SVSB011	230	320	600
12	Bacillus mucilogensis	SVSB012	230	320	600
13	Bacillus coagulance (L. sporogenes)	SVSB013	230	320	600
14	Bacillus licheniformis	SVSB014	230	320	600
15	Bacillus subtilis	SVSB015	230	320	600
16	Beauveria bassiana	SVSB016	250	320	400
17	Cellulomonas gelida	SVSB017	200	350	600
18	Cellulomonas uda	SVSB018	200	350	600
19	Cellulomonas cartae	SVSB019	200	350	600
20	Lactobacillus acidophilus	SVSB020	250	400	850
21	Lactobacillus plantarum	SVSB021	250	400	850
22	Metarrizum	SVSB022	210	320	500
23	Nitrobacter (between 2 to 6 Billion)	SVSB023	320		
24	Nitrosomonas (between 2 to 6 Billion)	SVSB024	320		
25	Pediococcus acidilactici	SVSB025	250	400	850
26	Penibacillus azotofixin	SVSB026	200	300	500

27	Pseudomonas fluorescense	SVSB027	210	320	500
28	Pseudomonas putida	SVSB028	200	220	350
29	Paciliomyces	SVSB029	220	320	500
30	Sacharomyces boulardii	SVSB030	200	250	500
31	Sacharomyces cereveaceae	SVSB031	200	230	400
32	Trichoderma virudi	SVSB032	200	220	350
33	Trichoderma harizonam	SVSB033	200	300	500
34	Thiobacillus ferrooxidans	SVSB034	200	300	500
35	Verticellum	SVSB035	220	320	500

SV SAMAGRA BIOLOGICS LLP

Old Sterling Building, Kadayarapanahalli, B. K. Halli Post, Jala Hobli, Near Aerospace SEZ, Bangalore North - 562149.



: +91 9880368489 ; +91 8977562505 ; +91 9108173141



: srihari@svsamagrabiologics.com ; janardhana@svsamagrabiologics.com



: www.svsamagrabiologics.com

Instruments:

PCR Machine



Shaker Incubators



Culture media cooling system



Autoclaves





CONCLUSION

- **As we have been there we have experienced and gained the knowledge about the Fermentation technology and biomass production background and its associated activities**
- **We have learned that how agriculture related producted can create a innovative ideas in the minds of farmers and normal citizens of India.**
- **We came to know how we can implement the ideas of Biomass production in practical way.**
- **We extend our heartiest thanks to Bangalore City college for making 18th November 2017 a day to cherish for some of the lucky students who are honored with your humble gesture to get an opportunity to visit such an esteemed industrial organization.**
- **We want to thank HOD **Priya John Mam**, **Sir Ranjith Kumar** and **Sir Kiran Kumar** for guiding and sharing information about organization profile and manufacturing process at S V Samagra Biologics LLP.**

24 GANDHI KRUSHI VIGNANA KENDRA

HEBBAL BANGALORE-560 065



INSTITUTIONAL VISIT TO AGRICULTURAL EXHIBITION

NOVEMBER 2017

SUBMITTED BY:

DEPARTMENT OF Life sciences

BIOTECHNOLOGY, MICROBIOLOGY AND BIOCHEMISTRY

**BANGALORE CITY COLLEGE,
BANGALORE- 560 043.**

To,
The Principal,
Bangalore City college,
Bengaluru.

Sub: Report on Institutional Visit to Agricultural Exhibition, November 2017 Reg....

Dear madam we are Participated and Visited the Agricultural Exhibiti on GKVKkrishimela, Bengaluru as a part of academic secession. Organized by **Gandhi Krushi Vignana Kendra**, Hebbal Bangalore-560 065. The following list of students and Faculties were actively participated the event of Krishimela and GKVK institutional visited from 15/11/2017 to 19/11/2017.

Thank you for the given oppportunity to explore knowledge and their academic visit to the Institutions like ICAR-Centers in Different fields Aquaculture, Animal, Dairy and different research organizations for their scientific exposure.

Sl.No	Name of the students	Class	Semister	Sl.No	Name of the students	Class	Semister
1	Subhajit Saha	MSc	3rd sem	24	Rukhiya B	BSc	1Sem
2	Bhawana Deora	MSc	3rd sem	25	Nagilla shravya Niharika	BSc	1Sem
3	Apoorva A Bennur	MSc	3rd sem	26	Shwetha M	BSc	1Sem
4	Mese Pavan Kumar	MSc	3rd sem	27	Thridarshini K	BSc	1Sem
5	Sukanya G	MSc	3rd sem	28	Likhitha R	BSc	1Sem
6	Panchee Lahon	MSc	3rd sem	29	Rabiya Begum D	BSc	1Sem
7	Megha Kanth	MSc	3rd sem	30	Nishchitha CM	BSc	1Sem
8	Yamisha Donkena	MSc	3rd sem	31	Shubakar	BSc	1Sem
9	A. Divya	BSc	V Sem	32	Harshith Kumar	BSc	1Sem
10	Ranjini. N	BSc	V Sem	33	James	BSc	1Sem
11	Lumbu jean patrick	BSc	V Sem	34	Naveen	BSc	1Sem
12	Preethi Jaiswal	BSc	V Sem	35	Nandha kishore	BSc	1Sem
13	Raghavendra MR	BSc	V Sem	36	Martin	BSc	1Sem
14	Chahat Arora	BSc	V Sem	37	Akhilesh	BSc	1Sem
15	Anadi	BSc	V Sem	38	Huraiya naaz	BSc	1Sem
16	Soniya Kamble	BSc	V Sem	39	Rashmi Gowda	BSc	1Sem
17	Amartya Ganguly	BSc	V Sem	40	Gazala Praveen	BSc	BScIII sem
18	Ganpat Malaye	BSc	V Sem	41	Dharani. D	BSc	BScIII sem
19	Ranjith	BSc	V Sem	42	Ambresh V	BSc	BScIII sem
20	Sarah	BSc	V Sem	43	K Hema Rao	BSc	BScIII sem
21	Patrick	BSc	V Sem	44	KiranKumar B	Faculties	
22	Neha Kumari	BSc	V Sem				
23	Praveen Kumar Gupta	BSc	V Sem				

Head of The Department
Department Of Biotechnology,
Bangalore City College,
Bangalore- 560 043.

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UNIVERSITY OF AGRICULTURAL SCIENCES, (GKV) BANGALORE



The University of Agricultural Sciences (UAS, Bangalore) is located in Bengaluru, India. It was established in 1964 as UAS Bangalore by a legislative act.

Gandhi Krushi Vignana Kendra(University of Agricultural Sciences Bangalore), a premier institution of agricultural education and research in the country, began as a small agricultural research farm in 1899 on 30 acres of land donated by Her Excellency Maharani Kempa Nanjammanni Vani Vilasa Sannidhiyavaru, the Regent of Mysore and appointed Dr. Lehmann, German Scientist to initiate research on soil crop response with a Laboratory in the Directorate of Agriculture.

BEGINNING OF GKV

- **The rulers of Mysore kingdom ([The Wodeyars](#)) felt the need to establish research units in the field of agriculture and donated about**

30 acres (120,000 m²) of land to set up an Experimental Agricultural Station at [Hebbal](#), and appointed German chemist Lehmann to initiate research on soil crop response with Laboratory in the Directorate of Agriculture around 1900. Later in 1906, [Leslie Coleman](#), a Canadian [Entomologist](#) and [Mycologist](#) succeeded Lehmann and served for 25 years.

- On a 30-acre (120,000 m²) land in 1899 was soon extended to about 1,300 acres (5.3 km²). The increasing reputation of this experimental station as a training center led to the foundation of the Mysore Agricultural College at Hebbal in 1946 affiliated to the [Mysore University](#). This was soon followed by the Agricultural College at [Dharwad](#) in 1947 which was then affiliated to [Karnataka University](#).
- In 1958, veterinary science as a discipline was started with the establishment of the



[Veterinary College at Hebbal also affiliated to Mysore University.](#)

DEVELOPMENT OF GKVK:

- With growing impetus given by the Indian Government for the agricultural sector, leading to what has been termed the Green Revolution, many agricultural universities were established throughout the country.

- **Mysore State Government through its Act No. 22 passed in 1963 provided for the creation of the University of Agricultural Sciences. The university came into existence on August 21, 1964 with operational jurisdiction over the entire state of Karnataka.**
- **The UAS was inaugurated on August 21, 1964 by Vice President of India Zakir Hussain in the presence of Chester Bowles, United States Ambassador to India and S. Nijalingappa, Chief Minister of Karnataka. On 12 July 1969, Prime Minister Indira Gandhi inaugurated GKVK campus.**
- **The University included the agricultural colleges at Hebbal and Dharwad, Veterinary College at Hebbal and 35 research stations located in different parts of the state along with 45 ICAR projects which were with the State Department of Agriculture, Horticulture, Animal Husbandry and Fisheries.**
- **Kullal Chickappu Naik was the first Vice Chancellor of this new university**
- **The phenomenal growth of the university, the differences in agroclimate in the parts of the state, led to the bifurcation of the university into two agricultural universities. An amendment to the University of Agricultural Sciences Act in 1986 saw the birth of the second university for agriculture in the state. The University of Agricultural Sciences, Bangalore was entrusted territorial jurisdiction over 15 southern districts of Karnataka comprising nearly fifty percent of the total area of the state, while the University of Agricultural Sciences, Dharwad, was given jurisdiction over the remaining area in the northern districts of the state.**
- **In 2005, with the needed to provide better autonomy to the veterinary education and research in the state, the Veterinary and Animal sciences faculty was bifurcated from both the Universities of Agricultural Sciences - Bangalore and Dharwad and placed under the single university - Karnataka Veterinary, Animal and Fisheries Sciences University with its headquarters in the northern district of Karnataka, Bidar by the passing of the Karnataka Veterinary, Animal and Fisheries**

Sciences University Bill, 2004 in the Legislative Assembly on February 10, 2004.

HEADQUARTERS AND COLLEGES:

The University of Agricultural Sciences, Bangalore currently has administrative headquarters at the Gandhi Krishi Vignana Kendra (GKVK) on the Bangalore-Hyderabad Highway.

IT HAS THE FOLLOWING COLLEGES:

- 1.College of Agriculture, Bangalore at GKVK
- 2.College of Agriculture, Mandya
- 3.College of Agriculture, Hassan
- 4.College of Sericulture, Chintamani
- 5.College of Basic Science and Humanities, Bangalore at GKVK

DEGREES OFFERED:

The university had two-degree programmes covering broadly agriculture and veterinary disciplines. Over the years, attempts have been made to diversify agricultural education by starting specialized undergraduate and postgraduate degree programmes in various branches of agricultural sciences.

Presently the university offers nine-degree programmes covering Agriculture, Veterinary, Fisheries, Horticulture, Dairy Sciences, Agricultural Marketing and Co-operation, Forestry, Sericulture and Agriculture Engineering disciplines

AGRICULTURAL EXHIBITION KRISHI MELA



ON 18TH NOVEMBER 2017 BY THE STUDENTS OF BANGALORE CITY COLLEGE



. In association with Government of Karnataka is celebrating the **KRISHI MELA 2017: Bringing new techniques and ideas to the farmers,** on 16th, 17th, 18th & 19th November 2017 at GKVK Campus, Bangalore, Karnataka.

.Institutional visit was carried out at Gandhi Krishi Vignana Kendra on 18/11/2017 especially for all the students from the department of Biotech and Microbiology. The main objective behind the visit was to make student aware about how various activities related to agricultural and its associated fields along with the students of Bangalore from the Department of Biotechnology and Microbiology.

. It was great opportunity to visit the Gandhi Krishi Vignana Kendra Krishi Mela 2017 where they showcase innovative and cutting edge agro technology and they provide a platform to farmers where they can interact with industries for technology and better yield. The Mela educate farmers to adopt alternate sources of revenue generation.

. Gandhi Krish Vignana Kendra Krishi Mela 2017 , Bangalore is a fair in association with Government of Karnataka to bring new techniques and ideas to the farmers.

INTRODUCTION



The main objective of organizing Krishi Mela 2017 is

- . To expose and train farmers on various aspects and to new technologies, like drip irrigation, fertilizers, pesticides, seeds, food processing, soil quality, agri finance and insurance, marketing, contact farming, post-harvest management, rural retailing etc.
- To showcase innovative and cutting edge agro technology.
- To provide a platform to farmers where they can interact with industries for technology and better yield.
- To educate farmers to adopt alternate sources of revenue generation.
 - Regeneration – urban and rural.
 - Focus on good environmental practice – in energy use and recycling.
 - New planting and development of green spaces.
 - Creating awareness of environmental issues.
 - Maintainance of good agricultural practices

EXPOSURE TO GANDHI KRISHI VIGNANA KENDRA KRISHI MELA 2017

1.PLANTS PROPAGATION TECHNIQUES

2.POULTRY

3.DAIRY FORMING

4.FISHERIES

5.AYURVEDIC MEDICINES

6.ABOUT MILLETS

7. AGRICULTURAL MACHINARIES & IRRIGATION

8.HYBRID VARIETIES OF FLOWERS[SUN FLOWER]

1.PLANTS PROPAGATION TECHNIQUES

The propagation techniques shown in GKVK was applied in case of Garden Care.Plant propagation is the process of creating new plants from a variety of sources: [seeds](#), [cuttings](#), [bulbs](#) and other plant parts. Plant propagation can also refer to the artificial or natural dispersal of [plants](#).

Plants have a number of mechanisms for asexual or [vegetative reproduction](#). Some of these have been taken advantage of by [horticulturists](#) and gardeners to multiply or [clone](#) plants rapidly. Humans may utilize these processes as propagation methods, such as [tissue culture](#) and [grafting](#). Plants are produced using material from a single parent and as such there is no exchange of genetic material, therefore vegetative propagation methods almost always produce plants that are identical to the parent.



PLANTS USING IN INDOOR AIR FILTERATION

Vegetative reproduction uses plants parts such as roots, stems and leaves. In some plants seeds can be produced without fertilization and the seeds contain only the genetic material of the parent plant. Therefore, propagation via asexual seeds or [apomixis](#) is asexual reproduction but not [vegetative propagation](#).



SOFTWOOD STEM CUTTINGS ROOTING IN A CONTROLLED ENVIRONMENT

Techniques for vegetative propagation include:

- Air or ground [layering](#)
- [Division](#)
- [Grafting](#) and [bud grafting](#), widely used in [fruit tree propagation](#)
- [Micropropagation](#)
- [Stolons](#) or runners
- [Storage organs](#) such as [bulbs](#), [corms](#), [tubers](#) and [rhizomes](#)
- [Striking](#) or cuttings
- [Twin-scaling](#)
- [Offsets](#)

2. POULTRY

Poultry are [domesticated birds](#) kept by humans for their [eggs](#), their [meat](#) or their [feathers](#). These birds are most typically members of the superorder Galloanserae (fowl) the [superorder Galloanserae \(fowl\)](#), especially the order [Galliformes](#) (which includes [chickens](#), [quails](#) and [turkeys](#)).

POULTRY OF THE WORLD



Poultry also includes other birds that are killed for their meat, such as the young of [pigeons](#) (known as [squabs](#)) but does not include similar wild birds hunted for

sport or food and known as [game](#). The word "poultry" comes from the French/Norman word *poule*, itself derived from the Latin word *pullus*, which means small animal.

The domestication of poultry took place several thousand years ago. This may have originally been as a result of people hatching and rearing young birds from eggs collected from the wild, but later involved keeping the birds permanently in captivity. Domesticated chickens may have been used for [cockfighting](#) at first and quail kept for their songs, but soon it was realised how useful it was having a captive-bred source of food.

Selective breeding for fast growth, egg-laying ability, conformation, plumage and docility took place over the centuries, and modern [breeds](#) often look very different from their wild ancestors. Although some birds are still kept in small flocks in extensive systems, most birds available in the market today are reared in intensive commercial enterprises.

Poultry is the second most widely eaten type of meat globally and, along with eggs, provides nutritionally beneficial food containing high-quality protein accompanied by a low proportion of fat. All poultry meat should be properly handled and sufficiently cooked in order to reduce the risk of [food poisoning](#).

3.DAIRY FORMING

Dairy farming is a class of [agriculture](#) for long-term production of [milk](#), which is [processed](#) (either on the [farm](#) or at a dairy plant, either of which may be called a [dairy](#)) for eventual sale of a [dairy product](#).

Although any mammal can produce milk, commercial dairy farms are typically one-species enterprises. In developed countries, dairy farms typically consist of high producing [dairy cows](#). Other species used in commercial dairy farming include [goats](#), [sheep](#), and [camels](#). In [Italy](#), [donkey](#) dairies are growing in popularity to produce an alternative milk source for human infants.

While cattle were domesticated as early as 11,000 years ago as a food source and as beasts of burden, the earliest evidence of using domesticated cows for dairy production is the seventh millennium BC - the early Neolithic era - in northwestern Anatolia . Dairy farming developed elsewhere in the world in subsequent centuries: the sixth millennium BC in eastern Europe, the fifth millennium BC in Africa, and the fourth millennium BC in Britain and Northern Europe .



A ROTARY MILKING PARLOR AT A MODERN DAIRY FACILITY, LOCATED IN GERMANY

SAHIWAL



Sahiwal is considered one of the indigenous of panjub and under the Rashtriya gokul mission incentives are given to rear this enlarged breed .sahiwal is a breed of zebu cattle which primarily is used In dairy production.sahiwal originated from the

sahiwal district of Punjab province in Pakistan.they produce the most milk.per day they produce 15-20 liters of milk.this breed of cow will gave A2 milk.

4.FISHERIES

Fishery is an entity engaged in raising or harvesting [fish](#) which is determined by some authority to be a fishery. According to the [FAO](#), a fishery is typically defined in terms of the "people involved, species or type of fish, area of water or seabed, method of fishing, class of boats, purpose of the activities or a combination of the foregoing features".The definition often includes a combination of fish and [fishers](#) in a region, the latter fishing for similar species with similar gear types.

A fishery may involve the capture of [wild fish](#) or raising fish through [fish farming](#) or [aquaculture](#). Directly or indirectly, the livelihood of over 500 million people in developing countries depends on fisheries and aquaculture. [Overfishing](#), including the taking of fish beyond [sustainable levels](#), is reducing [fish stocks](#) and employment in many world regions.A report by [Prince Charles'](#) International Sustainability Unit, the New York-based [Environmental Defense Fund](#) and 50in10 published in July 2014 estimated global fisheries were adding \$270 billion a year to global GDP, but by full implementation of sustainable fishing, that figure could rise by as much as \$50 billion.



5. AYURVEDIC MEDICINES

Ayurveda is a system of medicine with historical roots in the Indian subcontinent. Globalized and modernized practices derived from Ayurveda traditions are a type of complementary or [alternative medicine](#). In countries beyond India, Ayurveda therapies and practices have been integrated in general wellness applications and in some cases in medical use.

The main classical Ayurveda texts begin with accounts of the transmission of medical knowledge from the Gods to sages, and then to human physicians. In [Sushruta Samhita](#) (*Sushruta's Compendium*), [Sushruta](#) wrote that [Dhanvantari](#), Hindu god of Ayurveda, incarnated himself as a king of Varanasi and taught medicine to a group of physicians, including Sushruta. Ayurveda therapies have varied and evolved over more than two millennia. Therapies are typically based on complex herbal compounds, minerals and metal substances (perhaps under the influence of early Indian alchemy or [rasa shastra](#)). Ancient Ayurveda texts also taught surgical techniques, including [rhinoplasty](#), [kidney stone extractions](#), sutures, and the extraction of foreign objects.

Although laboratory experiments suggest it is possible that some substances used in Ayurveda might be developed into effective treatments, there is no evidence that any are effective as currently practiced. Ayurveda medicine is considered [pseudoscientific](#). Other researchers consider it a [protoscience](#), or trans-science system instead. In a 2008 study, close to 21% of Ayurveda U.S. and Indian-manufactured patent medicines sold through the Internet were found to contain toxic levels of [heavy metals](#), specifically [lead](#), [mercury](#), and [arsenic](#). The public health implications of such metallic contaminants in India are unknown.

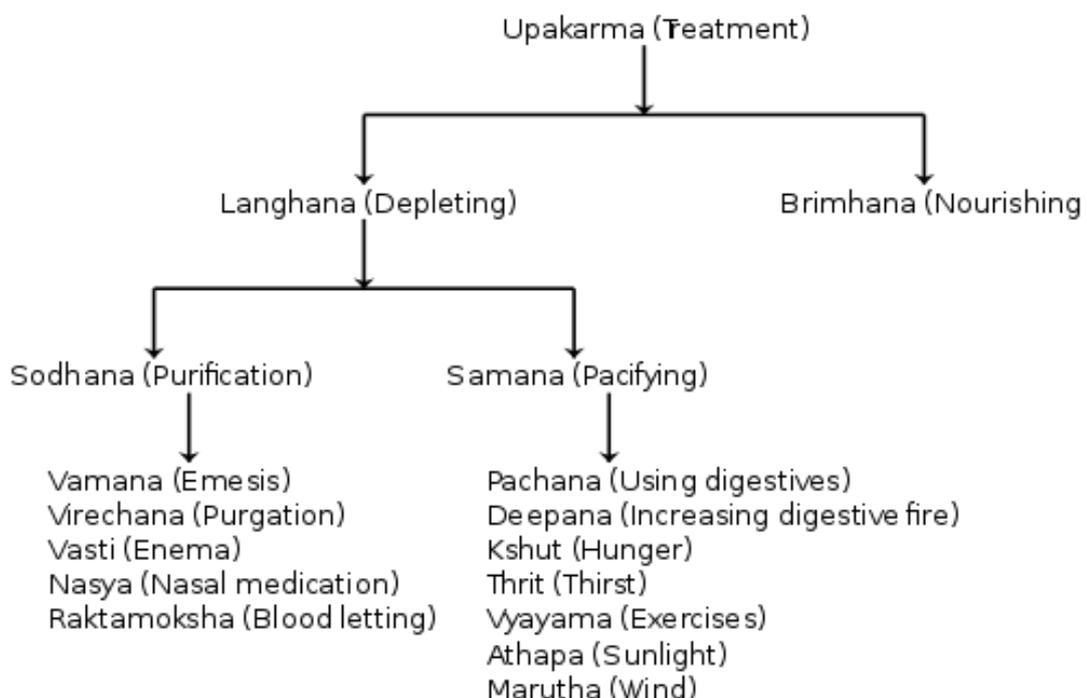
Some scholars assert that Ayurveda originated in prehistoric times, and that some of the concepts of Ayurveda have existed from the time of the [Indus Valley Civilization](#) or even earlier. Ayurveda developed significantly during the [Vedic period](#) and later some of the non-Vedic systems such as Buddhism and Jainism also developed medical concepts and practices that appear in the classical Ayurveda texts. Humoral balance is emphasized, and suppressing natural urges is considered unhealthy and claimed to lead to illness. Ayurveda treatises describe three elemental substances, the [humours](#) (Sanskrit [doṣas](#)), wind (Sanskrit [vāta](#)), bile ([pitta](#)) and phlegm ([kapha](#)), and state that equality (Skt. [sāmyatva](#)) of the [doṣas](#) results in health, while inequality ([viśamatva](#)) results in disease. Ayurveda treatises divide medicine into eight canonical components. Ayurveda practitioners had developed various medicinal preparations and surgical procedures from at least the beginning of the [common era](#).

The earliest classical Sanskrit works on Ayurveda describe medicine as being divided into eight components. This characterization of the physicians' art, "the medicine that has eight components"

- **KAYAKIKISTA**; general medicine, medicine of the body
- **KAMARA BHRTYA**: the treatment of children, paediatrics
- **SALYATANTRA**: surgical techniques and the extraction of foreign objects
- **SALAKYATANTRA**: treatment of ailments affecting ears, eyes, nose, mouth, etc. ("ENT")
- **BHUTAVIDYA**: pacification of possessing spirits, and the people whose minds are affected by such possession
- **AGADATANTRA**: toxicology
- **RASAYANATANTRA**: rejuvenation and tonics for increasing lifespan, intellect and strength
- **VAJIKARANATANTRA**: aphrodisiacs and treatments for increasing the volume and viability of semen and sexual pleasure.

DIAGNOSIS

Ayurveda has eight ways to diagnose illness, called **Nadi** (pulse), Mootra (urine), **Mala** (stool), Jihva (tongue), Shabda (speech), Sparsha (touch), Druk (vision), and Aakruti (appearance). Ayurvedic practitioners approach diagnosis by using the five senses. For example, hearing is used to observe the condition of breathing and speech. The study of the lethal points or *marman marma* is of special importance.



TREATMENT AND PREVENTION

Two of the eight branches of classical Ayurveda deal with surgery, but contemporary Ayurveda tends to stress attaining vitality by building a healthy [metabolic system](#) and maintaining good [digestion](#) and [excretion](#). Ayurveda also focuses on exercise, [yoga](#), and [meditation](#). One type of prescription is a [Sattvic diet](#).

Ayurveda follows the concept of [Dinacharya](#), which says that natural cycles (waking, sleeping, working, meditation etc.) are important for health. Hygiene, including regular bathing, cleaning of teeth, skin care, and eye washing, is also a central practice.



[Tulsi-flower \(holy basil\), an Ayurvedic herb/An Ayurvedic practitioner applying oils using head massage.](#)

1. *Ocimum tenuiflorum*, commonly known as holy basil, *tulasi*, is an aromatic [perennial](#) plant in the family [Lamiaceae](#). It is native to the [Indian subcontinent](#) and widespread as a cultivated plant throughout the [Southeast Asian tropics](#). *Tulasi* is cultivated for religious and supposed [traditional medicine](#) purposes, and for its [essential oil](#). It is widely used as a [herbal tea](#), commonly used in [Ayurveda](#).

6.MILLETS

These small grain plants are primarily produced in India, who cultivates over 8 million tons every year, followed by Africa and China. Millet can be used as a traditional cereal, but can also be used in porridge, snacks, and other types of bread, as it is very high in starch, like other grains. Millet is also a very good source of nutrients, vitamins, minerals, and organic compounds that can significantly boost human health in various ways. Millet is important because of its uniquely high content of nutrients, including impressive starch levels, B-vitamin, calcium, iron, potassium, zinc, magnesium, and fats. Furthermore, there are significant levels of protein and dietary fiber in millet as well, which contribute to even more health benefits of this important grain.

Millet is one of the best possible grains to add to your diet if you want to protect your heart. It is a rich source of magnesium, which is an important mineral for reducing blood pressure and the risk of heart attack or stroke, cholesterol, diabetes. Green fodder chiefly comprises finger-millet, foxtail millet, sorghum, barnyard



millet, little millet, kodo millet, pearl



1. Pearl millet is the most widely grown type of millet and India is largest producer of pearl millet. Pearl millet is a rich source of phosphorus, which plays an important part in the structure of body cells. Consumption of pearl millets helps in minimizing the risk of type 2 diabetes. Being a good source of magnesium, millets act as a cofactor in a number of enzymatic reactions.

2. Ragi or also known as African finger millet, red millet, ragi and very popular millet specially in Southern India. It is rich in calcium and protein and also have good amount of iron and other minerals. Ragi tops in antioxidant activity among

common Indian foods, Ragi also has some good number of Essential Amino Acids (EAA) which are essential for human body.

3. Sorghum is another one of the ancient cereal grain. Sorghum has high nutritional value, with high levels of unsaturated fats, protein, fiber, and minerals like phosphorus, potassium, calcium, and iron. It's also high in calories and macronutrients, jowar has more antioxidants than blueberries and pomegranates. Sorghum helps to improve metabolism.

4. Foxtail millets are rich in calories that provide energy and strength to the body to perform activities. Foxtail millets are available in the form of rice, semolina (like rava) or as flour. As with other millets, foxtail millet is rich in smart carbohydrates, the kind which doesn't increase the blood sugar levels immediately. It is rich in dietary fibre, and minerals like iron and copper. Due to this, it helps to reduce the levels of bad cholesterol and keeps the immune system strong.

5. Barnyard millet, with its nutritional profile, should belong on our tables already. It has 6 times more of fibre than wheat making it an ideal weight loss millet. The fibre will help maintain satiety. Apart from this, millet is rich sources of bone-building minerals calcium and phosphorus.

6. Kodo millet. It is easy to digest and is rich in phytochemicals and antioxidants, all of which helps prevent the occurrence of major lifestyle diseases and even helps to weight loss enthusiasts. Kodo millet has shown to reduce knee and joint pain, helps regularize menstruation in women among others.

7. Little millet is a rich source of B-vitamins, minerals like calcium, iron, zinc, potassium among others. It also provides essential fats to the body, the kind that helps in weight loss.

7. AGRICULTURAL MACHINARIES & IRRIGATION

MACHINARIES; -Agricultural machinery is machinery used in farming or other agriculture. There are many types of such equipment, from hand tools and power tools to tractors and the countless kinds of farm implements that they tow or operate. Diverse arrays of equipment are used in both organic and nonorganic

farming. Especially since the advent of mechanized agriculture, agricultural machinery is an indispensable part of how the world is fed.



IRRIGATION:-Irrigation is the application of controlled amounts of water to plants at needed intervals. Irrigation helps grow agricultural crops, maintain landscapes , and revegetate disturbed soils in dry areas and during periods of inadequate rainfall. Irrigation also has other uses in crop production, including frost protection, suppressing weed growth in grain fields and preventing soil consolidation. In contrast, agriculture that relies only on direct rainfall is referred to as rain-fed or dry land farming.



AGRICULTURAL TRACTOR

An Irrigation sprinkler is a device used to irrigate agricultural crops, lawns, landscapes, golf courses, and other areas. They are also used for cooling and for the control of airborne dust. Sprinkler irrigation is a method of applying irrigation water which is similar to natural rainfall. Water is distributed through a system of pipes usually by pumping. The first of farm machinery in agriculture is tractor. A tractor is a vehicle intended for drawing, towing, pushing or pulling something which cannot propel itself and, often, powering it too. In addition, tractor serves to deliver a high tractive effort (or torque) at slow speeds, for the purposes of hauling a trailer or machinery used in agriculture or construction.

An Irrigation sprinkler is a device used to irrigate agricultural crops, lawns, landscapes, golf courses, and other areas. They are also used for cooling and for the control of airborne dust. Sprinkler irrigation is a method of applying irrigation water which is similar to natural rainfall.

8. HYBRID VARIETIES OF FLOWERS [SUN FLOWER]



The new hybrid KBSH 53 sunflower seeds that produce 42 to 44 per cent of oil content, a new hybrid of Hebbal Avare, which will have more aroma essence (sogadu), One variety on display is the KBSH-53, a sunflower hybrid, which scientists said had higher oil content (42-44 per cent) and has a high seed yield of 1,700-2,700 kg a hectare. KBSH-53 hybrid and its

Parental lines were discriminated by seed, seedling and plant morphology and chemical response. Both the parental lines and F1 hybrid showed variation in the seed character seed colour seed shape the parental lines and F1 hybrid of KBSH-53 Responded differently to various chemical tests. By these chemical tests both the parental lines and F1 hybrid could be Identified . The sunflower (*Helianthus annuus*) is an annual plant in the family Asteraceae, with a large flower head (capitulum).

The stem of the flower can grow up to 3 metres tall, with a flower head that can be 30 cm wide. While the vibrant, strong sunflower is a recognized worldwide for its beauty, it is also an important source of food. Sunflower oil is a valued and healthy vegetable oil and sunflower seeds are enjoyed as a healthy, tasty snack and nutritious ingredient to many foods.

CONCLUSION

- **As we have been there we have experienced and gained the knowledge about the agricultural background and its associated activities**
- **We have learned that how agriculture can create a innovative ideas in the minds of farmers and normal citizens of India.**
- **We came to know how we can implement the ideas of Agriculture in practical way.**
- **The workers associated in the various branches of Krushi Mela are very friendly and adjusting , they gave us a chance to learn more about their products and services.**
- **We extend our heartiest thanks to Bangalore City college for making 18th November 2017 a day to cherish for some of the lucky students who are honored with your humble gesture to get an opportunity to visit such an esteemed organization.**
- **We want to thank HOD **Priya John Mam**,**Sir Ranjith Kumar** and **Sir Kiran Kumar** for guiding and sharing information about organization profile and manufacturing process at GKVK.**



Thank you

25 INDUSTRIAL REPORT ON CellKraft Biotech pvt.ltd.



SUBMITTED BY:

**DEPARTMENT OF BIOTECHNOLOGY,
MICROBIOLOGY.**

**BANGALORE CITY COLLEGE,
BANGALORE- 560 043.**

About Cell Kraft:

CellKraft Biotech is a multi-disciplinary contract research organization (CRO) which supports R&D activities in drug screening and assay biology, medicinal chemistry, *in vitro* and *in vivo* pharmacology and toxicology. With a major focus on animal cell culture based research our in-house R&D programs are focussed on the development of *in vitro* 3D models of human tissue for testing of pharmaceuticals and therapeutic purposes. Our diagnostics services include all kinds of Flow cytometry based tests.



Objectives

To be a world class contract research organization in the field of Life sciences.

- To develop cell-based assays and *in vitro* 3D models of human tissue for pre-clinical testing of pharmaceuticals and cosmetics.
- To develop personalized medicine and diagnostic technologies.

Activities and Focus Areas

- Contract research services
- Molecular Diagnostics
- Biotherapeutics Research & Development

The Founders



Siddharth Dubey
Founder & CEO

Siddharth is a Scientist and Entrepreneur in the Biotech industry from the last 5 years. He has worked with major Universities, Biotech Industries and Diagnostic Centres of South India and Maharashtra. His laboratory skills include Animal cell culture, Flow cytometry, Microbiology, Molecular biology and Phytochemistry. During 5 years of working he has successfully completed more than 1000 small and big projects. He is now the Director and a Full-time employee at CellKraft.



Ashutosh Acharya
Founder & Scientist

Ashutosh is an experienced Scientist with a demonstrated history of working in the biotechnology industry. He has excellent laboratory skills in Animal cell culture, Flow cytometry, Microbiology, Molecular biology and Bioinformatics, and is a strong professional with a Master of Science (M.Sc.) in Biotechnology from Bangalore University, Karnataka.

CellKraft Biotech Pvt. Ltd. was started on April 04, 2018 with a vision to establish a state-of-the-art Stem Cell Culture Lab and Advanced In vitro Molecular Diagnostics Facility. Through CellKraft we will be able to utilize both our research experience and knowledge to make an impact on the disease diagnostics and therapeutics field through collaborations with Medical Professionals and Medical Centres. Our aim is to become one of the major CROs and service providers in the field of Stem cell/tissue culture based therapeutics and Flow cytometry based Diagnostics.

Facilities :



Cellkraft Biotech is located at Babusapalya, Bangalore and has a state-of-the-art Animal cell culture lab, Molecular Biology lab and a Microbiology lab through which it can support a wide range of R&D activities.

Major Instruments

- Cytomics FC500 Flow Cytometer - Beckman Coulter
- Two Class II A2 Bio safety cabinets
- CO₂ Incubator
- Inverted Fluorescence Microscope with camera
- PC controlled Elisa Reader
- Ultra-Low Temperature -80°C Vertical Model deep freezer, 200L capacity
- Vertical -20°C deep freezer, 270L capacity
- Low speed centrifuge
- High Speed Refrigerated Research centrifuge
- Liquid nitrogen container
- Microbiological Incubator

- Vertical Laminar air flow
- Hot air oven
- UV VIS Spectrophotometer
- Electrophoresis unit - horizontal
- Bio-rad Mini-PROTEAN® Tetra Vertical Electrophoresis unit
- PCR
- UV Trans illuminator
- Soxhlet apparatus



Flow cytometer:



Research Services

Cell Culture Services

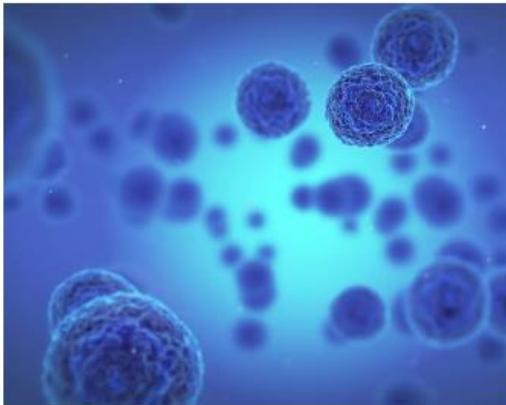
- In vitro Screening of Drug Toxicity, Mode of Action,
- Cytotoxicity Assays: MTT Assay, LDH Assay, SRB Assay, Clonogenic Assay
- Angiogenesis Assay
- Cell Migration Assay
- Scratch Assay
- Cytoprotective Assay
- Skin Irritation Assay
- Absorption Assay
- Eye irritation
- Skin sensitization
- Transdermal Permeability Testing
- Hepatotoxicity
- Phospholipidosis and Steatosis Assay
- Lysosomotropism
- Hemolysis assay
- Phototoxicity Testing
- Immunogenicity studies
- Mitochondrial Toxicity
- hERG Cardiotoxicity
- Blood brain barrier model for drug delivery testing

Development of *in vitro* 3D models of human tissue for pre-clinical testing of pharmaceuticals and cosmetics.

We also provide *in vivo* drug testing services for all kinds of assays and disease models.

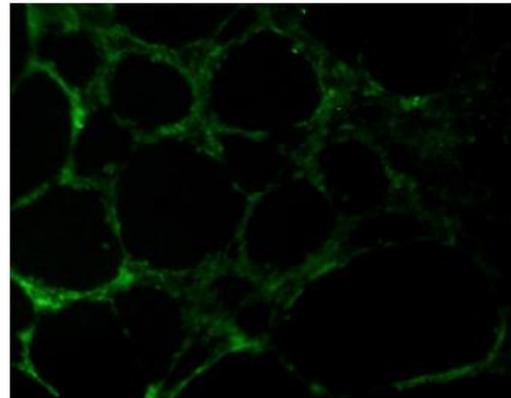


Stem Cell Services



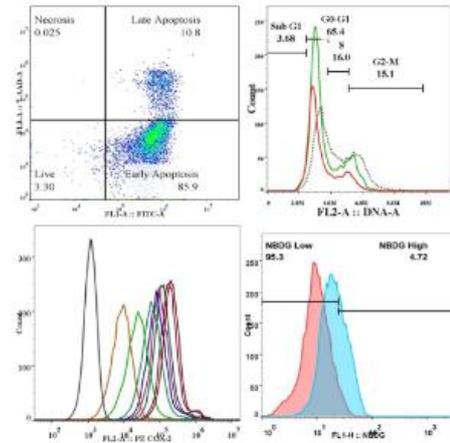
- Isolation and maintenance of Adult Stem cells and umbilical cord blood stem cells
- Characterization of MSCs/AMSCs/HSCs/NSCs
- Neuronal differentiation studies
- Osteogenic differentiation studies
- Adipogenic differentiation studies
- Dendritic and other immune cell generation from HSCs/MSCs
- Signalling pathways governing stem cells: Notch, Wnt, Hedgehog, etc.
- CFU Formation test

Fluorescence Microscopy Services



- Immunocytochemistry (ICC) based marker analysis
- Immunohistochemistry (IHC) based marker studies
- Apoptosis studies by Nuclei and cytoplasmic staining
- Karyotyping

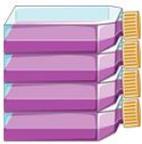
Flowcytometry Services



- Anti Cancer Studies: Cancer Cell Toxicity, Viability assay, Apoptosis/necrosis, DNA Damage assays
- Mitochondrial Membrane potential($\Delta\psi$)
- Cancer marker analysis
- Detection of Stem Cell and Differentiation Markers
- Cell Cycle Analysis (Propidium Iodide staining)
- DNA Fragmentation Studies (TUNEL Assay)
- Cell Specific Marker Studies
- Plant Ploidy and Genome Size Analysis
- Toxicity Testing: Cell Toxicity/viability assays
- Sperm cell analysis: Mitochondrial depolarization assay & TUNEL Assay

- Immunology: Cytokinin/Interleukins/TNF- α /CD-4/CD-8
- Hematology: Immunophenotyping/ erythrocyte analysis/ leukocyte analysis/ platelet analysis/ Quantification of antigens or antibodies
- Pre-natal diagnosis
- Pathology: etiological diagnosis
- Microbiology: Quantification of antigens/TUNEL assay/Cell viability/food safety/Bacterial Transformation/Bacterial membrane potential assay
- Genetics: Genome content/Ploidy analysis/detection of functional genes

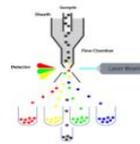
Cell culture



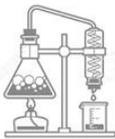
Microscopy



Flow cytometry



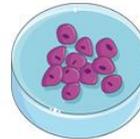
Phytochemistry



Microbiology

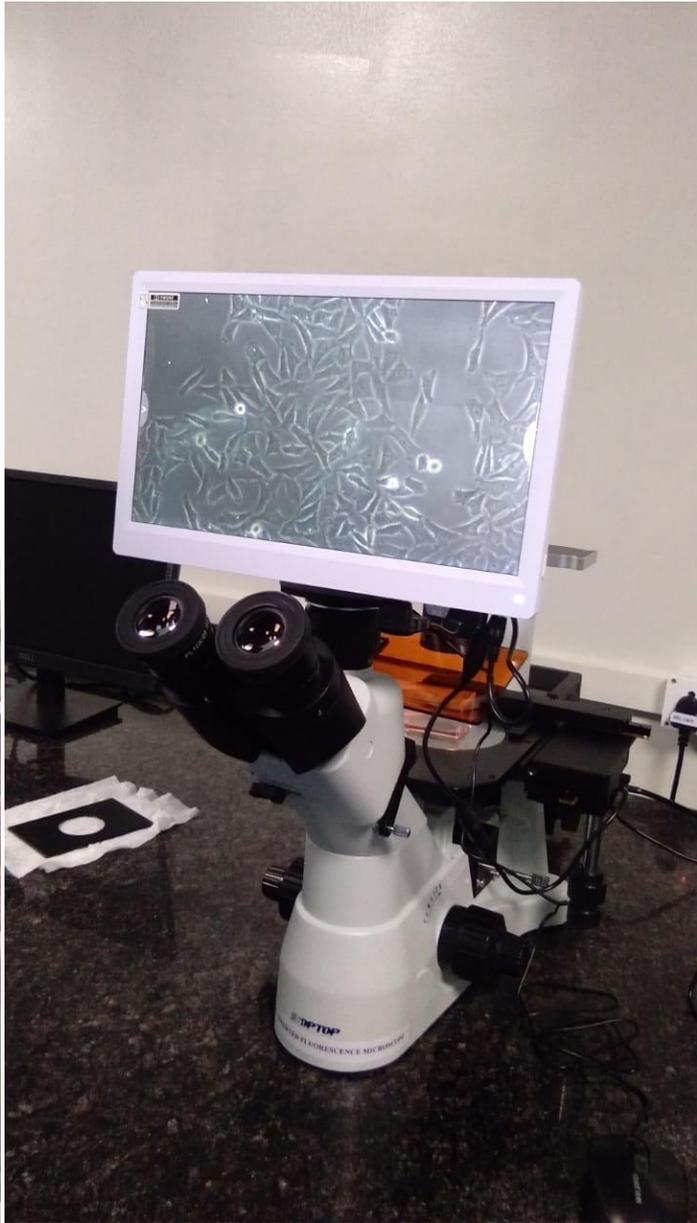
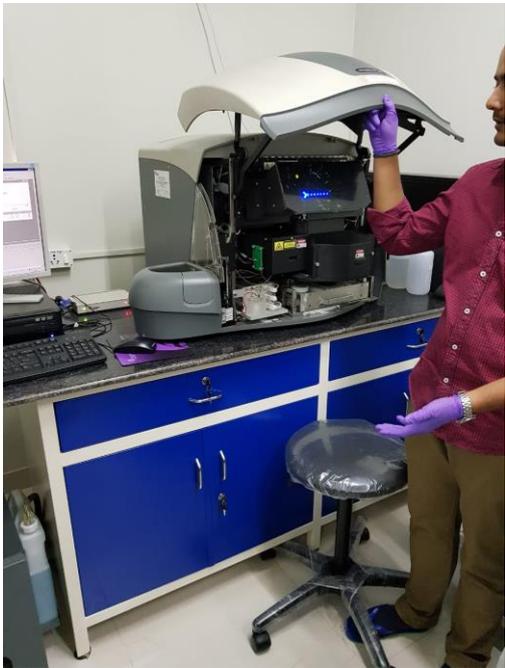


Biocompatibility testing



[More Services >](#) [Training & Projects >](#)







CONCLUSION

- As we have been there we have experienced and gained the knowledge about the Cancer technology and Research and other activities background and its associated activities
- We have learned that how cancer and phytochemical related products can create innovative ideas in the minds of industries and normal citizens of India.
- We came to know how we can implement the ideas of Biomass production in practical way.
- We extend our heartiest thanks to Bangalore City college for making 27th december 2018 a day to cherish for some of the lucky students who are honored with your humble gesture to get an opportunity to visit such an esteemed industrial organization.
- We want to thank HOD.Priya John Mam, and Sir Kiran Kumar for guiding and sharing information about research organization profile and manufacturing process at cell kraft biotech pvt. ltd.

REPORT OF VISIT TO IISc OPEN DAY -2019

TO.

The HOD of Chemistry department

Banglore City College

From,

Anusha S Bhat

Asst Professor

Dept of Chemistry

Banglore City College

Subject- Report of visit to IISc open day -2019

This year in IISc open day was held on 23/03/2019. I am with two of my colleagues and with 50 students from our college visited the IISc campus. We started from our college at 9.30 am and reached the IISc campus at 10.30 am. There we visited the chemical science and life science departments. In chemical science department we attended a small session about Raman spectrum and about application of laser in detecting sound waves. It was an informative one. Then we arrived at the fascinating chemical experiments organised by the merck team. It was really interesting and attractive one. The quizzes and games organised by the royal chemical society members were nice. Really the visit to IISc open day meets the hunger of our knowledge.

I would like to thank the principal of our college and the management team for supporting us in making this one day visit to IISc a very successful one.

With regards

Anusha S Bhat

27. Use of Tensors in Fluid Mechanics



BANGALORE UNIVERSITY
DEPARTMENT OF MATHEMATICS
JNANA BHARATHI CAMPUS
BENGALURU- 560 056

☎: 91-080-22961439 (O)
91-9448375595 (M)
Email: hgnraj@yahoo.com

Dr. H. G. NAGARAJA
Professor and Chairman

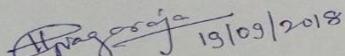
September 19, 2018

TO
Prof. P. M. Balagondar
Department of PG Studies in Mathematics
Bangalore City College
Bangalore

Dear Sir,

We wish to express our sincere thanks for the expert lecture titled "Use of Tensors in Fluid Mechanics" on 03.09.2019 for the participants of UGC sponsored Refresher course in Basic Sciences conducted by UGC-HRDC, Bangalore University, Bangalore held during 29.08.2018 to 19.09.2018. We would like to mention that, your talk was well appreciated by the participants.

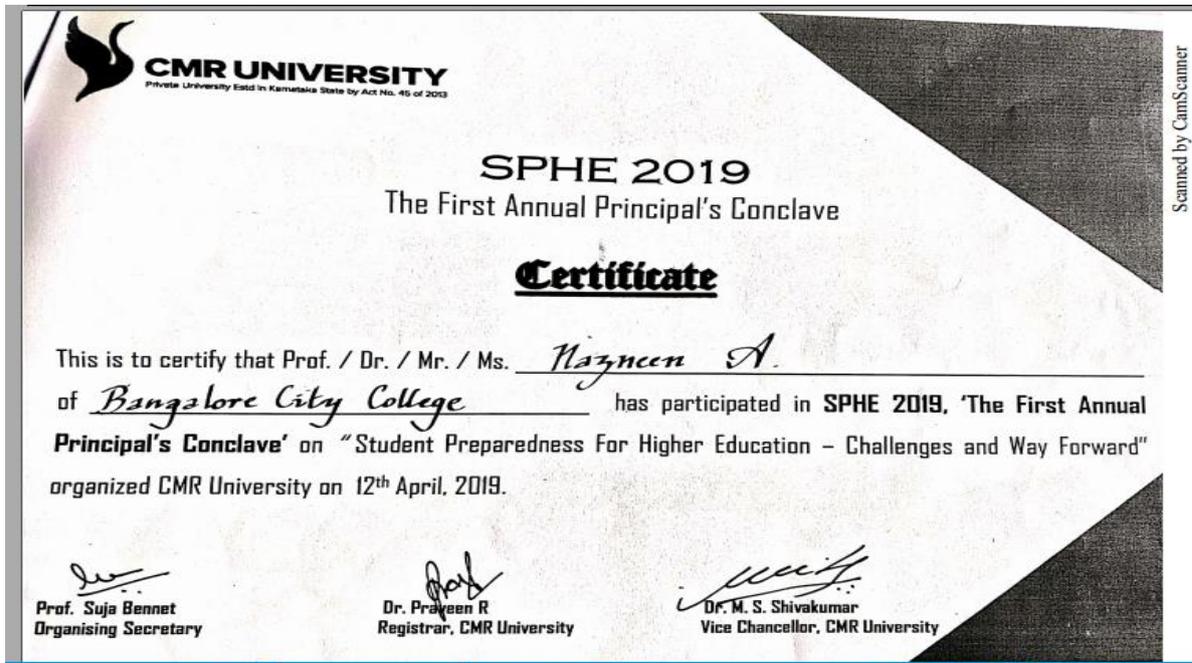
Kind Regards,


(Dr. H. G. NAGARAJA)

Course Co-ordinator

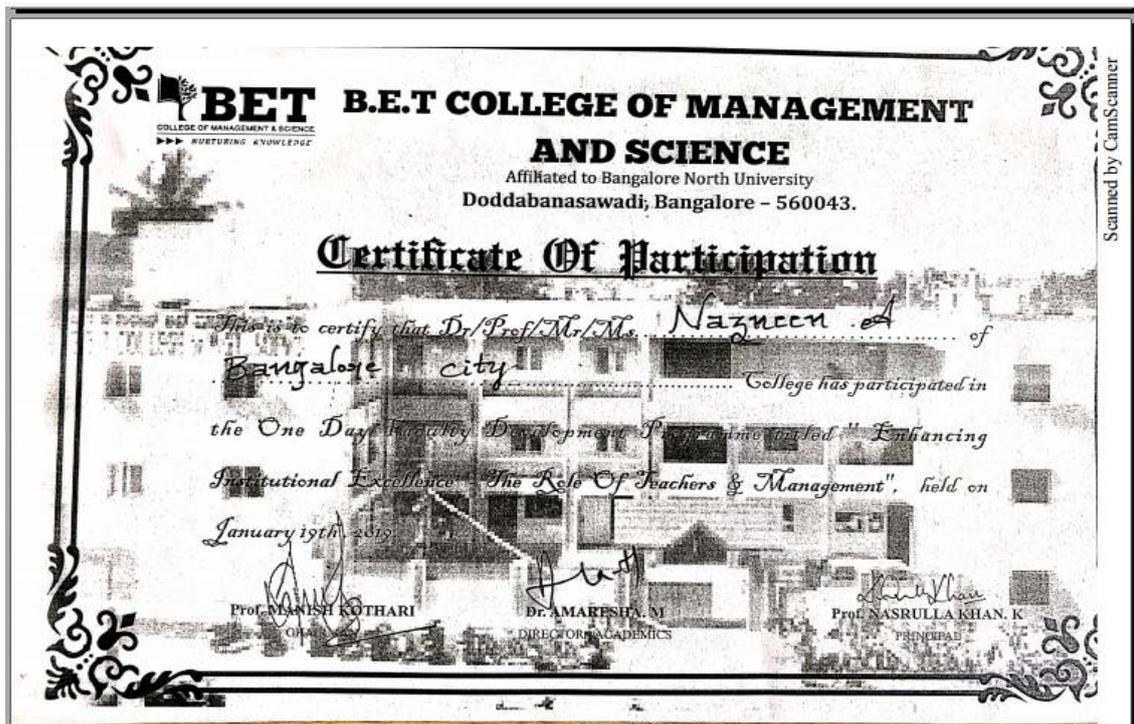
28. SPHE: The First Annual Principal's Conclave

CMR university

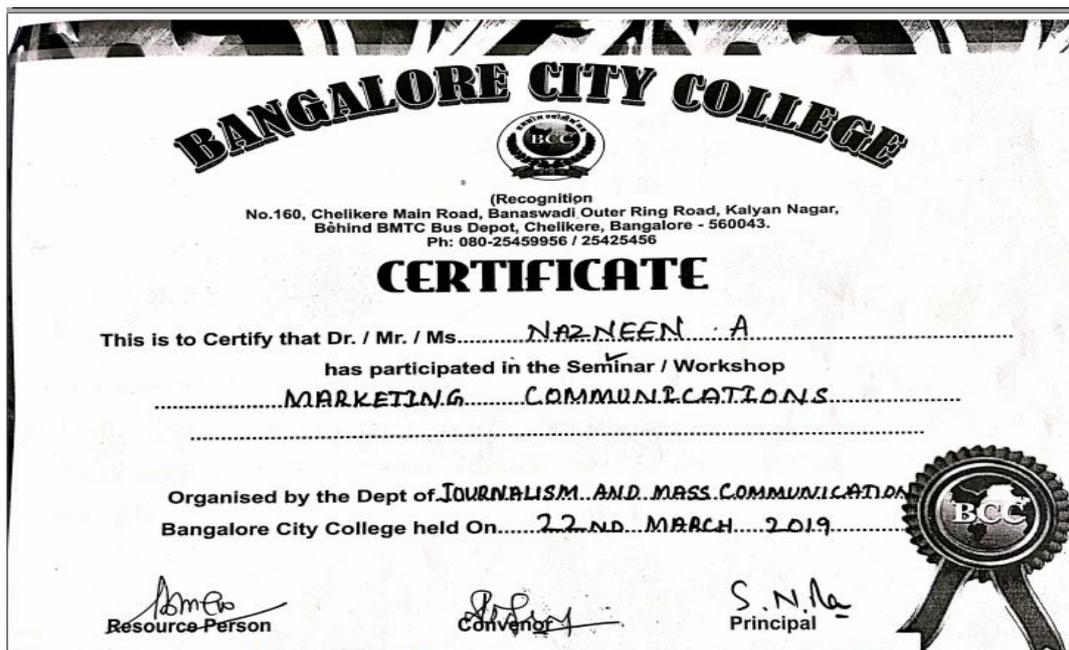


29. Enhancing institutional Excellence- The role of teachers & management

BET college of Management



30. Bangalore city college (Organised by dept of Journalism and mass communication)
Seminar/ workshop on Marketing Communication



31. Bangalore city college (Organised by department of english) Communication and interpersonal skills

The Department of English organised a workshop on 'Communicative and Interpersonal Skills' on 28th of February 2019, at the Seminar hall. Dr. A. Srinivas, Ph.D., former faculty of the University of London, Singapore College University was the resource person for the day.

The Hall was jam-packed with U.G and P.G. Students of various department along with few faculty members. Dr. Srinivas was warmly welcomed with a bouquet of flowers by the faculty members of the department of English.

He opened the first session with a puzzle in order to stimulate the rational and logical thinking and the problem solving ability of the participants. The participants actively involved themselves in the activity and amazingly came out with the desired solution paving the way to explain about one of the quintessential of the interpersonal skills, the 'Emotional Intelligence' that enables one to relate with another positively.

He also expounded on how to handle emotions and also differentiated emotions and feelings. He vividly stated that feelings pertain to the Brain and Emotions to the Heart. He encouraged the students to love, to respect and to empathize with their fellow beings, to detox their minds of hatred and to live in harmony.



vvvvvvvvv

A worksheet was given to everyone relating to this aspect that emphasized on the importance of the familial bonding and relationships. Participants enthusiastically worked them out and were duly rewarded. This concluded the first session.

Astonishingly, the participants remained glued to their seats in anticipation of the next session even though they were given an opportunity to go out and relax. This gesture of the students was very much appreciated.

The second session was about the 'Communicative Skills.' He explained the term "communicative skills". He also gave guidelines for the students to prepare their resumes, how to write official letters, the latest changes in writing a business letter, and also how to face interviews. He briefed about the non-verbal aspects of communication, confidence and an impressive response in an interviews.

A worksheet was distributed in this session as well to test their word skills and vocabulary. The participants exhibited an unswerving involvement in this as well that was very much appreciated and was justly rewarded.

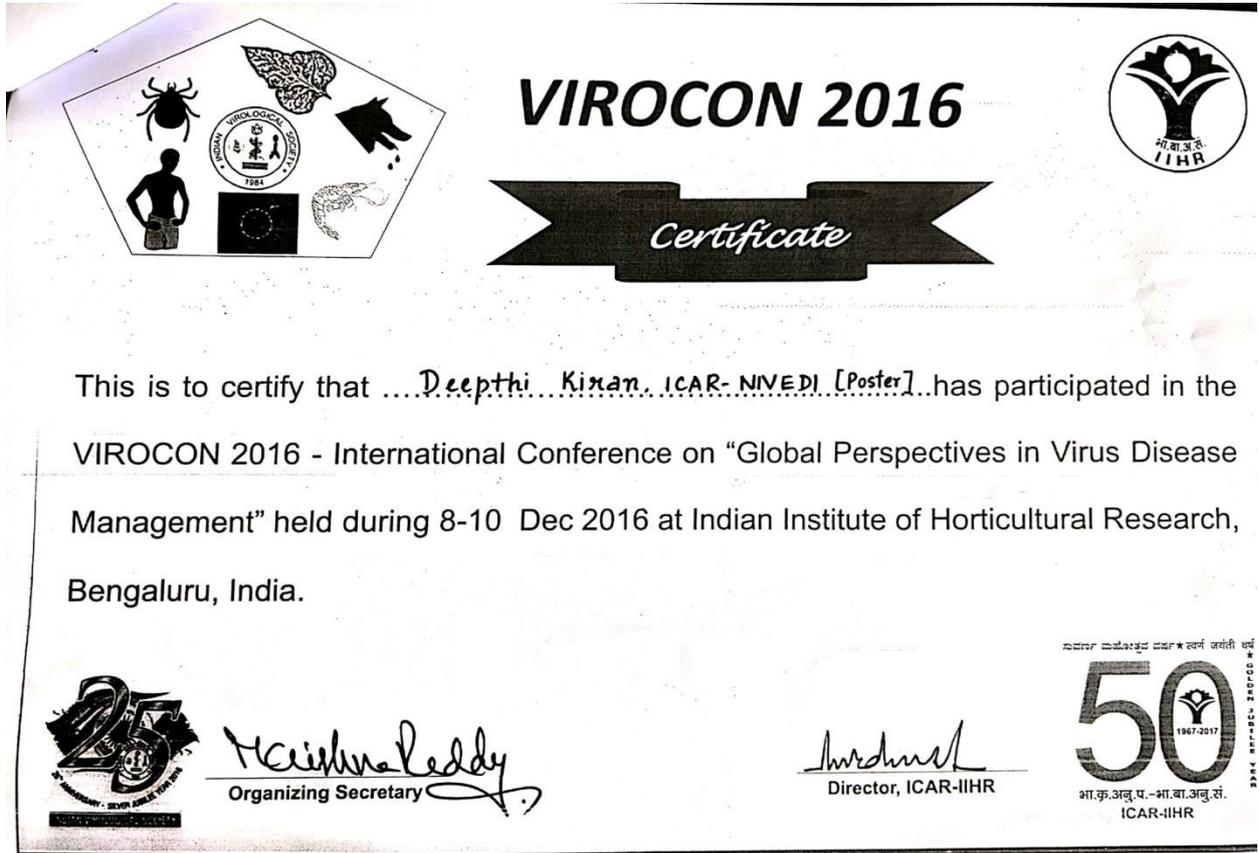
Dr. Srinivas closed this session by motivating the participants to develop their vocabulary and their language and communicative skills by reading the newspapers and other literatures regularly. He recommended The Chamber's 21st century dictionary and Roger's Thesaurus for reference and profusely encouraged the participants to read books voraciously.

Feedback forms were distributed to the participants and undoubtedly the workshop was highly commended. Certificates of participants were distributed.

Thus it return out to be highly instructive, useful, interesting, innovative initiative very much beneficial to all the participants.

32. VIROCON (Global perspectives in virus disease management)

Indian virological society



33. Hindustan coca cola private limited

INDUSTRIAL VISIT

REPORT ON INDUSTRIAL VISIT AT HCCB

Management is all about practical implications of the theoretical concepts. Students are required to have Industrial Visits besides their classes in order to have a thorough understanding. With this objective in mind, a One – day Industrial Visit was Organized by “Bangalore City college , Kalyan nagar” on 25th April 2019 to “Hindustan Coca-Cola Beverage Private Limited” plant in Bidadi, Bangalore.

The visit was planned for the students of B.com – 6th Semester , BBA-6th Semester and M.com students accompanied by the Faculty-coordinators (Asst Prof. Nazneen A, H.O.D, Mr. Abdul Rahman, Assistant professor and Ms. Archana A R, Assistant Professor). The bus left the college campus by 8:45 am with a total strength of 36 students. The group reached the plant by 11:00 am. After giving a briefing of the rules and guidelines to be followed, the students were served refreshments manufactured at their plant. An introductory session was conducted by one of their staff who provided very useful information about the Coca-Cola Company such as:

- An insight into the historical background of Coca Cola.
- Products offered worldwide i.e. Thumbs Up, Maaza, Sprite, Fanta, Coke and Limca.
- Quality Standards followed.
- Various Certifications acquired (ISO 9001:2008;ISO 14001;2004.ISO 22000:2005)
- Mentioned about every activity happening in the plant like washing of bottles at high temperature, making of plastic bottles, filling process, capping, Inspection, Quality check, labeling and packaging.
- Lastly, she splintered the myths regarding the ill effects of Coca-Cola logically.

After the session the students were taken to the Assembly Line and briefed about the Processes and Operations undertaken by the plant. The curiosity of the students was finally satisfied when a question answer session was conducted by the staff. The students were provided with deep insights about the working of the Plant and each and every question was patiently answered by the staff. The visit was finally concluded around 01:00 pm. The students left the plant around 01:30 pm. The industrial visit to Coca-Cola was an enriching experience for students in getting live exposure of manufacturing which can help them in their internships and further career enhancements.



34 GIAAMfoundation, SJES college of management studies

International conference on Bussiness and technology - challenges and oppurtunities for inclusive and sustainable growth in the millennium

2 International Conference On
Business and Technology - Challenges and Opportunities for
Inclusive and Sustainable Growth in the New Millennium

GIAAM FOUNDATION **SJES** **Microsoft IT Academy**

College of Management Studies
Affiliated to Bengaluru North University
Approved by AICTE - New Delhi and Recognised by Government of Karnataka
An ISO 9001:2015 Certified Institution
Medahalli, Old Madras Road, Bangalore - 560043

Thursday, 11th April 2019

Certificate

This is to certify that Dr./Prof./Ms./Mr. PINNAHAJ ANUGRAHAM
of BANGALORE CITY COLLEGE
Participated/Presented a Paper in the
Conference titled BOT and Healthcare system for elderly persons


Dr. B. Lakshma Reddy
Principal


George Varghese
Chief Executive Officer


K. Nagaraj
Chairman

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35. Cell Kraft Biotech Pvt Ltd



Cellkraft Biotech Pvt Ltd
No.20.BNGR Plaza First floor. 7th cross rd.
Nanjappa Graden, Bapusapalya, Horamavu,
Bengaluru

MEMORANDUM OF UNDERSTANDING signed between Bangalore City College, and Cellkraft Biotech Pvt Ltd

The Memorandum of Understanding between the **Cellkraft Biotech Pvt Ltd**, No.20.BNGR Plaza First floor. 7th cross rd. Nanjappa Graden, Bapusapalya, Horamavu, Bengaluru and **Bangalore City College** No 160 Chelikere main Main Road, Chelikere, Kalyan Nagar, Bangalore-560043, is being signed on 15.10.2015.

The MOU is being signed on the prospect that both the institution collaborate on developing the joint academic and research co-operation between the institute.

For Collaborative Research and academic activities

The scope of MoU is to define a mechanism to promote interdisciplinary research; impart vocational and skill oriented training and other programs to benefit student and staff of both organizations; joint research and academic activities leading to academic excellence; new knowledge generation; innovative technology development; professional skill and competence development; vocational training capacity building and many such synergies of interdisciplinary research through collaboration and networking of **Bangalore City College** and **Cellkraft Biotech Pvt Ltd**.

1. OBJECTIVES

Cellkraft Biotech Pvt Ltd, and **Bangalore City College** will undertake joint research work in the areas of mutual interest:

- To setup a virtual center for interdisciplinary research in the **Bangalore City College** in collaboration with **Cellkraft Biotech Pvt Ltd**.
- The concerned scientists of **Cellkraft Biotech Pvt Ltd**, and corresponding faculty members of College together will formulate syllabus for academic programs, new courses, joint research projects and training for skill oriented Human Resources with due approval of the institute and within the framework of rules and regulation governing both the organizations.
- Training programs on state of art topics of interdisciplinary research for faculty, staff, student and technical personnel of both the organizations within the area of co-operation will be undertaken at the institutes.
- To work on collaborative research projects involving other agencies of the region and work towards development of Bangalore region keeping in view the interests and philosophies of each other.



Cellkraft Biotech Pvt Ltd
No.20.BNGR Plaza First floor. 7th cross rd.
Nanjappa Graden, Bapusapalya, Horamavu,
Bengaluru

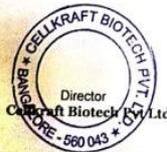
EFFECTIVE DATE AND DURATION OF MOU

- a) This MOU shall be effective from the date of its approval by competent authorities at both ends.
- b) The duration of the MOU shall be for a period of **5 years** from the effective date.
- c) During its tenancy, the MOU may be extended or terminated by a prior notice of not less than six months by either party. However, termination of the MOU will not in any manner affect the interests of the students/faculty/scientists who have been admitted to pursue a programme under the MOU.

MISCELLANEOUS

- a) Both **Bangalore City College** and **Cellkraft Biotech Pvt Ltd** shall not, during the term of this Agreement directly or indirectly, solicit or offer employment or engagement to any of the personnel of other party without the prior consent in writing of that other party.
- b) After this Agreement has been signed, all preceding understandings/negotiations and correspondence pertaining to it shall become null and void.

IN WITNESS WHEREOF PARTIES HERE TO HAVE ENTERED INTO THIS AGREEMENT EFFECTIVE AS ON THE DATE AND YEAR FIRST WRITTEN ABOVE.



36. Sangenomics research lab



**MEMORANDUM OF UNDERSTANDING
BETWEEN
Bangalore City College
&
Sangenomics Research Lab**

SCOPE OF THE MOU

THIS MEMORANDUM OF UNDERSTANDING (MOU) made and executed on this the 3rd day of March 2015 between **BANGALORE CITY COLLEGE AND SANGENOMICS RESEARCH LAB** a private research and development firm

Main objectives of the collaboration:

- 1) To impart advanced training and workshops in the areas of Biosciences
- 2) To design and implement various short term and long term courses (UG/PG programs) based on industrial requirements in the emerging disciplines of Biosciences.
- 3) To guide Biotechnology and other life sciences students for project work
- 4) To strengthen the technical research collaborations by pooling in academicians and researchers to carry out Contract Research projects
- 5) To design and develop research projects for funding from the Government and other funding agencies.
- 6) To offer special lectures by experts from SRL on topics pertaining to emerging topics in Biosciences.
- 7) The BCC and SRL shall exchange their scientific and research manpower for smooth conducting.

SCOPE AND TERMS OF INTERACTIONS

Both **Bangalore City College** and **Sangenomics Research Lab** shall encourage interactions between the Scientists, Research fellows, faculty members and students of both the organizations through the following arrangements:

- a) Exchange of personnel through deputation as per the rules of the respective institute, limited periods as mutually agreed upon;
- b) Organization of joint conferences and seminars;
- c) Practical training of **Bangalore City College** students at **Sangenomics Research Lab**;
- d) Joint guidance of student projects/thesis in and other areas of national interest at **Bangalore City College** by **Sangenomics Research Lab** on mutually agreeable terms.

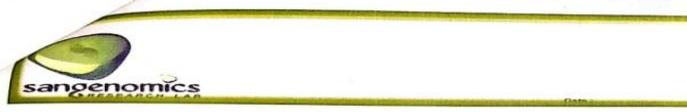
2nd Cross, Krishna Reddy Colony, Domlur Layout, Old Airport Road, Bangalore- 560071
080-65332028 Email: sangenomics@hotmail.com Web: www.sangenomics.com



- a) **Sangenomics Research Lab** may depute its personnel as visiting faculty at **Bangalore City College** to teach any of the regular Course or specialized topics.
- b) **Sangenomics Research Lab** may seek assistance/guidance of **Bangalore City College** faculty member/s in product/process modification, modernization, trouble shooting, etc.
- c) Would allow the industrial visits of students for half/full day to provide them with an exposure to various equipment, instrument, etc.
- d) **Sangenomics Research Lab** may showcase its business activities at the seminar/workshop/conference, etc. at **Bangalore City College**.
- e) **Sangenomics Research Lab** may avail library, Internet, computational facilities at **Bangalore City College**.
- f) Post-graduate student will be allotted a Research supervisor from **Bangalore City College** faculty members. A Research Scientist at **Sangenomics Research Lab** may be appointed as Co- research guide as per the rules of the respective institute for a student Registered for degree at **Bangalore City College**. The student maybe encouraged to take up the project such that **Sangenomics Research Lab** desirably benefits from its outcomes.
- g) The students will carry out part of their M.Sc/B.Sc research work or M.Sc/B.Sc. project at **Bangalore City College** and **Sangenomics Research Lab** depending on the nature of the work as per rules of the respective institute depending on facilities and requirements.
- h) There will be no restriction on the contents of the thesis and on publication of results of the thesis, subject to the condition that no Intellectual Property Rights can be secured for any part of the work which will be decided with mutual consent.

Both **Bangalore City College** and **Sangenomics Research Lab** will be free to independently carry out follow-up research on the thesis work conducted under this scheme

2nd Cross, Krishna Reddy Colony, Domlur Layout, Old Airport Road, Bangalore- 560071
080-65332028 Email: sangenomics@hotmail.com Web: www.sangenomics.com



IN WITNESS WHEREOF PARTIES HERE TO HAVE ENTERED INTO THIS AGREEMENT
EFFECTIVE AS ON THE DATE AND YEAR FIRST WRITTEN ABOVE.



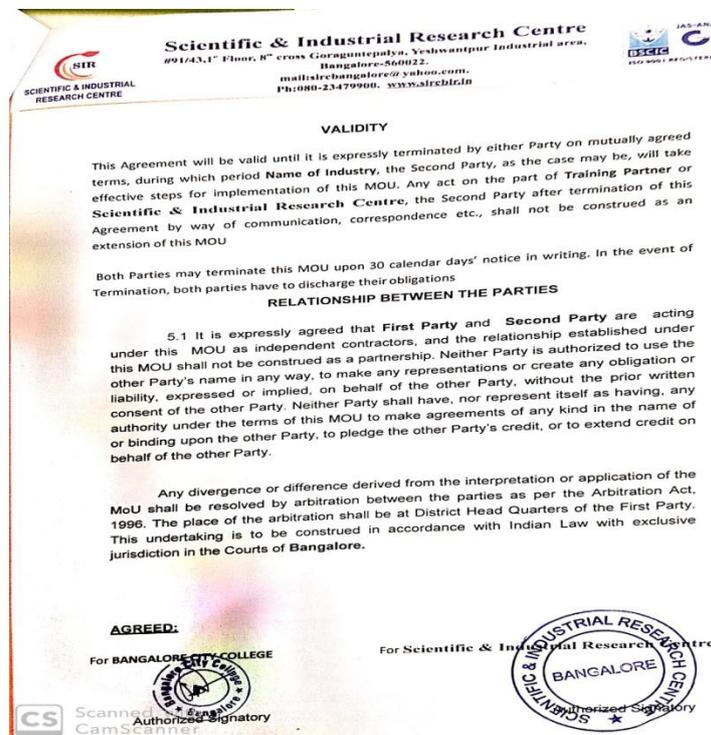
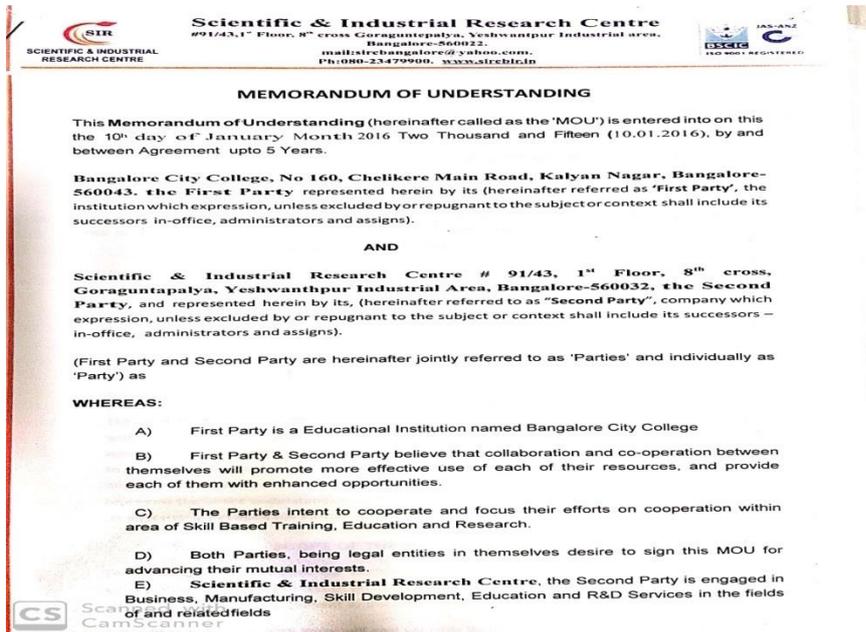
Date



Date

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37. Scientific & Industrial research Centre



38. TransIT mPower Labs(P) Ltd.

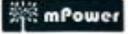


In witness whereof the authorized signatories of mPower Global and Bangalore City College have executed this MOU at Bangalore, Karnataka on 09th January 2017.


 Signature: _____
 Name: Azhar Ali
 Title: Manager Training Solutions


 Signature: _____
 For: Bangalore City College.



Consulting | Product Development | IT Services | Training | 

mPower Global - Bangalore City College.

Campus Relationship Memorandum of Understanding (MOU)

This Memorandum of Understanding ("MOU") is executed on the 09th of January 2017.

mPower Global a company having its corporate office at No. 42, Tower 6, Sarvghatta Road 1st Phase, 1st Stage, BTM Layout, Next to IAI Bldg Bangalore - 560 029 - India, hereinafter referred to as 'mPower', which unless repugnant to the context or meaning thereof, will include its successors-in-interest. And assigns, on the one part;

And

Bangalore City College, Chellur Hoysale Nagar Bangalore-560043, Karnataka.

Hereinafter referred to as 'the College', which unless repugnant to the context or meaning thereof, will include its successors-in-interest and assigns, on the one part.

This MOU is signed with the objective of furthering industry-academic relationship for mutual benefit. The two parties will work towards this common cause with the objectives stated below.

I. **Objectives:**

- mPower Global as part of its activities to build fruitful & mutual relations with campus proposes to offer programs of mutual interest agreed by the parties.
- However, it is expressly agreed that this MOU does not constitute any sort of agreement or obligation or commitment by mPower Global to absorb or provide employment to students of the College.
- The parties shall mutually agree upon the resources in the form of infrastructure and people in order to achieve the objectives stated in this MOU.

II. **Term and Termination:**

The term of this MOU shall commence from 09th January 2017 and will be valid until May 2017. In case of any issues where both the parties don't come to a conclusion and agree on a common point, mPower Global or Bangalore City College may terminate the MOU at any time by giving 30 days' notice in the other side.

TransIT mPower Labs (P) Ltd.  #2, Tower 6, Sarvghatta Road, 1st stage, 1st phase, BTM Layout, Bangalore - 560 029, India
 Tel: +91 80 4128 1111 / 4128 3000. E-mail: info@powerglobal.com website: www.powerglobal.com

Consulting | Product Development | IT Services | Training | 

III. **Terms and Conditions:**

Roles and Responsibilities of mPower Global:

- This MOU is signed for Bachelor of Computers for Training on Java and Final Year Academic Project Execution for the 6th Semester Students.
- This MOU stands valid for students who have enrolled at mPowerGlobal for these above mentioned sessions.
- This MOU is signed for conduct on session sessions from the college Campus. All the sessions will be conducted at mPowerGlobal office premises.
- mPower Global will conduct Training on JAVA / J2EE/Adv.JAVA Technologies.
- Only those candidates who have registered with mPower for final year projects are allowed to be associated with our trainings.
- The total duration for training sessions would be 30 hours.
- The training would be a support to the candidates to help them execute the 8th Semester Academic projects on Java Technology.
- The projects are categorized in 3 categories as mentioned below.
 - IEEE (2016/17/12/13/14/15/16 Titles)
 - Web based.
 - Inputs or ideas from students (only those which are approved by our technical team).
- The project selection solely depends on the choice of individual student. The students have to mandatorily select projects provided from the list of mPower Global.
- mPower Global will provide certificates to the students who complete their training and project with us.
- Attendance report will be given to the college authorities in the month of April.
- As this MOU is signed for out-house (Bangalore City College) session, mPower Global is not responsible for any installations software or periodic implementations of any hardware in the college premises.

TransIT mPower Labs (P) Ltd.  #2, Tower 6, Sarvghatta Road, 1st stage, 1st phase, BTM Layout, Bangalore - 560 029, India
 Tel: +91 80 4128 1111 / 4128 3000. E-mail: info@powerglobal.com website: www.powerglobal.com

39. GenEclat Technologies- Bangalore city college



40. GenEclat Technologies- Bangalore city college

 +91- 7619537125
contact@geneclat.com
www.geneclat.com

GenEclat Technologies- Bangalore City College.
Campus Relationship Memorandum of Understanding (MoU)

This Memorandum of Understanding ("MoU") is executed on the 12th September 2019.
GenEclat Technologies a company having its corporate office at No. # 46, 2nd main, 5th cross, Pushpagirinagar, Hosakerehalli, BSK 3rd stage, Bengaluru, Karnataka, 560085, India.
Hereinafter referred to as "GenEclat", which unless repugnant to the context or meaning thereof, will include its successors- in interest and assigns, on the one part;
And
Bangalore City College, Chelikeri Kalyan Nagar Bangalore -560043, Karnataka.
Hereinafter referred to as 'the College', which unless repugnant to the context or meaning thereof, will include its successors-interest and assigns, on the one part.

This MOU is signed with the objective of furthering industry-academic relationship for mutual Benefit. The two parties will work towards this common cause with the objectives stated below.

1. Objectives:

- GenEclat Technologies as part of its activities to build fruitful & mutual relations with campus proposes to offer programs of mutual interest agreed by the parties.
- However, it is expressly agreed that this MOU does not constitute any sort of agreement or obligation or commitment by GenEclat Technologies to absorb or provide employment to students of the college.
- The parties shall mutually agree upon the resources in the form of infrastructure and people in order to achieve the objectives stated in this MOU.

2. Term and Termination:

The term of this MOU shall commence from 12th September 2019 and will be valid until September 2024. In case of any issues where both the parties don't come on a conclusion and agree on a common point, GenEclat Technologies or Bangalore City College may terminate the MOU at any time by giving 30 days notice to the either side.



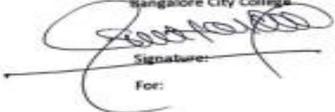
 +91- 7619537125
contact@geneclat.com
www.geneclat.com

In witness whereof the authorized signatories of GenEclat Technologies and Bangalore City college have executed this MOU at Bangalore, Karnataka on 12th September 2019.

GenEclat Technologies LLP

Signature:  
Name: SHREEDHANYA
Title: CO-FOUNDER and CEO

Bangalore City College

Signature: 
For:



41. Sotesys Technology India Pvt Ltd-Bangalore City College



