

GAJAJYOTI 2020

an

IMPRESSION

March, 2020

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**CENTURION
UNIVERSITY**
Shaping Lives...
Empowering Communities

an initiative
by

Centurion
University
of Technology
and
Management



Centurion
UNIVERSITY

Shaping Lives...
Empowering Communities...

an IMPRESSION



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Greetings to all our dear colleagues and students from editorial team of the souvenir of Gajajyoti, 2020: an IMPRESSION. Like previous years, this year also we are organizing Gajajyoti, the Annual Function of CUTM, at Paralakhemundi Campus, from 1-3 March, 2020. This year the annual function of CUTM will be celebrated along with Kisan Mela, which will be inaugurated by Orissa State Cabinet Minister of Agriculture, Fisheries and Higher Education, Dr. Arun Kumar Sahoo. In this auspicious occasion, the Organizing Committee decided to launch an e-souvenir to add a feather in the cap.

An overwhelming response from our students and colleagues has been received in terms of putting forward their creative and scientific contributions to enrich the e-book. An initiative has been taken up to accommodate as many contributions as possible within two cover pages. As CUTM family comprises of diversity in terms of nationality, language, culture and so on, the editorial team has decided to keep English as the souvenir's official language. An effort has been made to publish maximum number of creative works received, but keeping in mind the content, language and unavoidable technical issues, unfortunately few write-ups could not be incorporated.

The souvenir will be released as an e-book by CUTM so that it can reach all the students, staffs, faculty, patrons and many others who are directly or indirectly part of the University. The editorial team has put a sincere effort to reflect the ideas of the contributors through the souvenir, though there are some limitations, which will be overcome in the upcoming years. Creative and technical writings from students and faculty are the main strength of this souvenir and thus, the editorial team extends heartfelt gratitude to all of them.

Hope the readers will enjoy the essence of each page of 'an IMPRESSION'.

Disclaimer: The opinions expressed by the contributors do not necessarily reflect the views of "an IMPRESSION" and the editorial team is not responsible for the originality of the contributions.



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Message

Dr. Supriya Pattanayak
Vice Chancellor

My formal journey with Centurion began five years ago although I have been associated with the University from its inception. The name of the University “Centurion University of Technology and Management” and the tag line “Shaping lives, empowering communities” were conceived in a room in the Pokhariput office. The beginnings were small but the dreams big. The team that was drawn to the promoters shared the dream, the passion and the commitment. The growth, therefore, was organic.

Today Centurion has come a long way and the product has matured, although not at the pace the founders would have it. The dream was to be at the cutting edge of technology – of anything undertaken, especially responding to real life problems, a lab to land and land to lab approach. There was also a desire to always serve the under-served peoples and geographies and therefore the focus on experience based, practice oriented education from the outset. This is seen both in the functioning of the University and the social enterprise outreach initiatives (under the generic name of Gram Tarang) that the University has promoted. Behind its progress have been the tireless efforts of many hands who have worked to see this dream turn into fruition. Needless to say, students have been an important part of this journey and have contributed enormously to the growth of the University.

Gajajyoti, the Annual Fest of the Centurion University at Paralakhe-mundi is a showcasing of some of these achievements. I wish the celebrations all success and hope it is a harbinger of even better and smarter things to come.





Message

Dr. Anita Patra

Registrar

Dear Students,

Student life at the UG and PG level is that phase of life when there is so much to do; it's exciting time but demanding too. You have lots of courses and projects to do; you have many things to explore like the world, the technology, your potentials, friendship, love, the human nature, the music, the sports, the nature and many others. You are not yet experienced, yet you need and are expected to balance. So, manage time, sharpen your skills, learn technology and the human skills, fly high up but be grounded, and rise to the situation.

Learning is the focus, whether from class, or from other media. Social media is productive if productively used. You are supposed to be good at studies, communications, smart, good at some co-curricular or extra-curricular activities, etc. Managing time is the key as it will save you from many frustrations. Believe me you are having a lot of time, you have 24 hours each day. Go for all that excites you. Work hard, show energy and enjoy as well. Do not be hesitant to try out new things.

Sharpen your skills. You need to converge on the area of your interest and explore your potential. Pursue your interest. Do not give up. You may not succeed immediately but you definitely will. There is nothing that you can't do if you really want to. This is technology driven era, so learn technology. Become smart user and developer of technology. To succeed one important aspect is managing yourself as well as others. You need to be team player. Remember together each achieves more. Remember, however talented or knowledgeable we might be individually, we need to appreciate the fact that when we work with others in a team we complement each other.

We wish you to fly high, but remember the roots, the community, and the society. Be relevant. Be humane. That's what Centurions ought to be. We take from society so we must contribute to society. Be positive and spread positivity. As Centurions, you should never give up. We may fail in certain things and things may not happen we expect. But then that's fine. Try again. Sometimes situation may be very unfavourable or demanding. Rise to the situation. Take up the challenge. Challenge only gives us the opportunity to do better in life.

Remember "What's coming is better than what is gone"

All the very best. Have all success in life!

Anita Patra





Message

Dr. M. Devender Reddy

Dean
M.S. Swaminathan School of Agriculture

The M.S. Swaminathan School of Agriculture (MSSSOA), an accredited school by ICAR, was established in 2013 Paralakhemundi campus, Gajapati district, Odisha, as a constituent school of Centurion University of Technology and Management (CUTM) a State UGC, NAAC and AICTE approved Private University established in 2010 by an Act of the Odisha Legislative Assembly. The School of Agriculture was named in honour of the father of Green Revolution in India in the year 2015.

At MSSSOA, students of B.Sc. (Hons) Agriculture are offered education in agriculture, as per ICAR V Dean's committee recommendations, through different departments. The school has full-fledged departments such as Agronomy, Horticulture, Soil Science and Agricultural Chemistry, Genetics and Plant Breeding, Plant Pathology, Entomology, Extension Education including economics, Plant Science, Plant Physiology, Seed Science and Technology, and Biotechnology with requisite facilities, wherein undergraduate programmes are offered for fulfilling the mandatory objectives. Besides B.Sc. (Hons) Agriculture Programme, the School offers M.Sc. Agriculture programme in Agronomy, Horticulture (Vegetables), Genetics and Plant Breeding and Extension Education from 2017-18.

I am impressed with the MSSSOA curriculum and training which is oriented towards skill integrated education; close community, state, market and civil society engagement in the value chains of its offerings; and associates with number of social enterprises and outreach entities under the umbrella of Gram Tarang in the areas of employability enhancement, financial inclusion, agri-processing, last-mile supply chain and biotechnology created by CUTM that address local problems. Further, the MSSSOA has established close operational relationship with community and network of companies in agro industry, NGOs, NSDC, APSSDC and Government Organizations to enrich its educational offerings.

I feel that all the above facilities and the location of the school in serene atmosphere make me believe that MSSSOA is special in its own way of creating education hub for Agriculture. I am sure that in coming years, the MSSSOA will be a torch bearer for Agriculture education and imparting training to the people dealing with Agriculture.





Message

Dr. P. Srinivasa Rao

Dean, School of Engineering & Tech.,
Research & Development

The school of Engineering comprises of departments namely, Civil Engineering, Computer Science and Engineering, EEE, ECE, Mechanical Engineering. The mandate of the school is to produce globally competitive industry ready graduates in four years in the said disciplines of Engineering. The courses in programme are designed and drafted by all stakeholders—Academia, Industry, with CBCS (choice based credit system) approach with domain based learning for ready employability.

The school adopts LIVE philosophy.

- Learning: Hands on. Experience based and Practice oriented
- Ideas: Make a difference through appropriate and relevant innovation and actionable research.
- Value: Shaping Lives and Empowering Communities and creating Nano – Mini and Micro enterprises.
- Experience: Quantifiable. Sustainable. Scalable and Replicable while striving to create a sense of ultimate delight among all stakeholders.

All the Department has well equipped laboratories soft wares for meeting the needs of practical learning and experiments. The school has a strong technical collaboration with academic and industrial organizations and also has abundance of placement opportunities in software, engineering, service organizations.. The unique strength of the school is its skill integrated education. For the present graduating batch, the school is having 187 numbers of students on its roll and 158 offers of placement obtained by our students as on date.





Message

Dr. Ashok Misra

Dean

School of Applied Sciences

School of Applied Sciences enriches learning with high quality teaching, Choice Based Credit System curriculum with Domain Knowledge, hands-on experience, state-of-the-art well-equipped laboratories, a resource rich library and many more facilities with excellent infrastructure. School hires highly qualified faculty members from institutes of repute to ensure that the best education is provided to the students. Faculty members of the School are actively engaged in research in the emerging areas, resulting in publications in international and national journals, participation in international and national conferences. Students also get opportunities to undergo summer internships, exposure visits as well as academic assistance to prepare for NET/ JAM/ JEST/GATE examinations. The School conducts Seminars, Symposia by Eminent Professors from Institutes of Repute, Conferences, Workshops, Student Seminar Series as well as Personality Development sessions. The school focuses on extra-curricular activities along with academics. The students are encouraged to participate in campus activities, play sports, mingle with their peers, organise cultural festivals, social events. The school provides a safe, discipline, friendly environment for all its students with a stringent anti-ragging policy and an emphasis on women's safety.

A. Misra





Message

Dr. Sivala Kumar

Dean
School of Agricultural and Bio-Engineering

The school of Agricultural and bio-Engineering comprises of three departments, Agricultural Engineering, Dairy Technology and Phyto-pharmaceuticals. The department of Agricultural Engineering was established in 2012 followed by Dairy Technology and Phyto-pharmaceuticals in the year 2018 and 2019, respectively. The mandate of the school is to provide support to the farming community, research & development organizations and establishing industrial linkages. The prime objective of the school is to produce globally competitive graduates in four years in the discipline of Agricultural Engineering, Dairy Technology and Phyto-pharmaceuticals. Curriculum for Phyto-pharmaceuticals has been formulated in collaboration with Himalaya Wellness organization pertaining to the needs of Industrial sector. Core Phyto-pharmaceutical lab facilities related to phyto-chemistry, pharmacology, pharmacognosy, basic extraction techniques etc., are available to students which will enable them to build strong technical and practical knowledge. In addition to that, the school also focuses on developing technologies in agricultural mechanization, agricultural process development & equipment design and land & water management. All the Department has well equipped laboratories for meeting the needs of practical learning and experiment. The school has a strong technical collaboration with academic and industrial organizations and also has abundance of placement opportunities in food processing industries, marketing, supply chain management, and production and agriculture extension. The school has a strong technical collaboration with academic and industrial organizations and also has abundance of placement opportunities. The unique strength of the school is its skill integrated education; close community development, market and civil society engagement in the value chains of its offerings; and creation of a number of social enterprises that address local problems. The special features of the school are to provide engineering inputs in land preparation, in land and water managements, use of machineries for harvesting and processing of the crops, value addition of the agricultural and dairy products. The school has total 18 teaching faculties and 5 non-teaching faculties. Among which 10 faculties are with PhD degree. Presently, the school is having total 272 numbers of students and around 45 numbers got placed from the graduating batch.





Message

Dr. Suvendu Mishra

PGP Coordinator
School of Management

The School of Management has been moving forward with its mission to become a “high quality resource center in the sphere of social enterprise management by catalyzing sustainable development in rural and urban areas”. Established over a decade ago as Centurion School of Rural Enterprise Management with the support from Ministry of MSME and Industry department Govt of Odisha, it has been relentlessly working towards grooming professionals for less developed societies. The school offers various programs such as, Bachelor in Business Administration (BBA), Master in Development Management (MDM), and Masters in Agri -business Management (MABM). The Master program is designed in collaboration with Norwegian University of Science and Technology (NTNU) and under its aegis student exchange programs are organized between both campuses for one semester. The Pedagogy is unique and blends theory and the learning of necessary tools for dealing with the practical problems of managing development and agri business projects and organizations. The learning emphasizes hands on experience and hence includes rural immersions, field studies, Projects and Internships. The school of Management believes its strength lies in its faculty and supports them in their overall development and devised a “TRCT” framework for assessing their performance and design career plans for their development. The school of Management is also active in offering supporting services to many government and private institutions, and NGOs such as, department of planning and monitoring, Government of Odisha, Department of Women and Child Welfare, NABARD, India Post, Harsha Trust to name a few. The School of Management at Paralakhemundi has been able to achieve 100 percent placement for its passed out students and its alumni are placed in several top notch companies in diversifies sectors. In the future SoM aims to lunch many innovative programs with an optimal mix of experiential and theoretical learning provides a unique opportunity for young professionals to achieve their career aspirations and lead a meaningful life while creating a just society.





Message

Dr. Krishna Prasad

Dean
School of Fisheries

The ever increasing global population and rapid change in food habit of the growing population led to increase in the demand for producing more fish. However fisheries sector at global level is constantly facing stiff challenges such as alarming shrinking of water spread area, decreasing fish population in natural water bodies and rapidly changing climatic conditions. Indian fisheries sector is no exception to these changes, yet the sector has register impressing growth rate over the years and significantly contributed to the national economy, with 1.1 % of national GDP and 5.4% of Agricultural GDP during last financial year. Fisheries is also called as sun rise sector has the potential for the accerate enhancement of production and contribution to national economy. Perhaps all these issue could be addressed by carefully harnessing the country natural resource and human resources development. Probably one of the best approaches for developing human resources is imparting of quality education to the students and skill enrichment training to the farmers thereby increasing their knowledge on the subject. In this perspective Centurion university of technology and management had established B.F.Sc (Bachelor of Fisheries Science) in the year 2017 to promote skill human resource development and we continues to strive for it

I am very happy to know Centurion University of technology and management, Parlakhemundi is celebrating “GAJAJYOTHI 2020” and bringing out an event magazine “AN IMPRESSSION”. I hope that the magazine would contain valuable articles as well as information on curricular and co curricular activities of the college contributed by both Staffs and Students. This will become a valuable document for the students their student days at the college. I am sure that every student and faculties would be eagerly waiting for the forecomming function and the magazine

I extend my hearty congratulation and best wishes to both faculties and students on this happy occasion of GAJAJYOTI,2020 Celebration





Message

Mir Sadat Ali

Dean
School of Vocational Education and Training


Centurion University's School of Vocational Education and Training (SoVET) has been recognized as a Centre of Excellence by the Ministry of Skill Development and Entrepreneurship, Government of India. This is an acknowledgement of our constant endeavour to provide the highest-quality education, with a unique skill-integrated education model, best-in-class industry-aligned skill labs and industry trained and certified faculty. Centurion University is the first university to get such a recognition in India. SoVET operates the sixth best Private ITI as per the National Level ITI grading conducted by Ministry of Skill Development and Entrepreneurship, Government of India. SoVET is responsible for integrating skill courses in all higher education programs of the university. Successfully implemented 33% skill courses in each stream of higher education. SoVET is partnered with industries like Eicher, Schneider, Badve Engineering Ltd, Godrej Heavy Equipments Ltd to develop skill integrated education model linked to placement. All the trainers of the SOVET are trained and certified by various Sector skill councils and some industry partners. SoVET has played a pivotal role in implementing National Skill Qualification Framework (NSQF) by rolling out D. VOC and B.VOC program in partnership with Industry for candidates interested to pursue studies with practical experience. School has positive impact on approximately 1500 students in developing employable skills. Set a benchmark of giving placement to each and every student in the respective skill domain.






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event book



GAJAJYOTI-2020

leave an impression
 1st-3rd March, 2020



Morning 8:30 am

Carnival



Tableaux, Colour Art, Science | 2nd Gate Venue

Day 1
1st March

GAJAJYOTI-2020

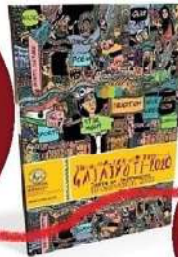
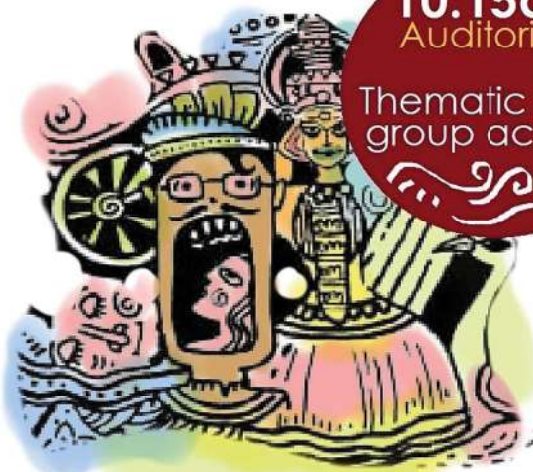
Leave an Impression

Morning 9:30 am
Inauguration Programme

Lightening of the lamp

10:15am
Auditorium

Thematic group act



Inauguration of 'Gajajyoti-2020 Magazine'

Venue Auditorium

9:45 am

10:30 am-12:00 am

Intra college Quiz

Venue: Auditorium

Time: 12:30am-2:30pm

**AR-VR & Game Show
Flash presentation**



Venue:
all round campus
Unity Lab

10:30-12:00 am

Venue
Old Dhaba



**MASTER CHEF
COMPETITION**

Venue: Near Library
Community Art

**Light
-Sound &
Laser Show**



7:00pm
-8:00pm
Lawn

3:30 pm-4:30 pm

**Group Dance
10:15pm**

Classical Dance

8:30 pm Auditorium

Semi-Classical & Jazz

by
mousumi

8:45pm

Mime Act: 9:15 pm
**ALI BABA
CHALLIS CHOR**



Auditorium

9:30 am-10:30 am
Inauguration of seven
Walli Magazines

Day 2
2nd March

GAJAYOTI-2020
Leave an
Impression

9:00 am- 2:00 pm
**INTER-COLLEGE
DANCE COMPETITION**



Venue
Auditorium

**ROCK
SHOW**

3:30 pm-
5:00pm
The park

'Soney
nehi-
denge'



5:30pm-6:00pm
Puppet Show

Venue
Lawn



Literature Fest
a face in the dark

venue
Lawn

6:00pm

Skit by Drama Club

 **Tribal Fest**

6:30pm

Venue: Tribal Village

  **Ethnic
Food Court**

Odia, Telugu, Bihari,
Bengali, Bhutanese
& African

Tappeta Gullu (Telugu Dance)



Folk Dance

Odia, Bhutanese,
African, Bengali

  **Ethnic dress
competition**

Exhibition
Camp Fire



Fire-dance
Drama

8:30
pm

**MAA
NISHAD**

Day 2
2nd March

Attractions



GAIJYOTI-2020

Leave an
Impression

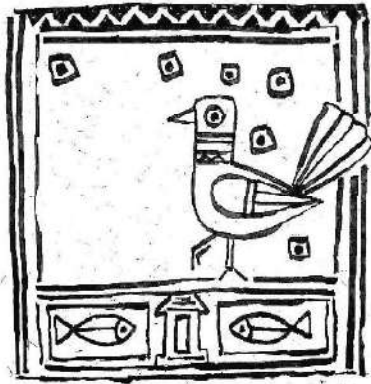
Performance by

Senior Management Team
& Faculties



Venue: Auditorium

12:00pm



FOLK SONG

with



Padma shri
JITENDRA HARIPAL



TRIBAL
VILLAGE

9:30pm

9:30 am- 11:00 am
GAJAYOTI Literature Festival 2020

Day 3
3rd March

GAJAYOTI-2020
Leave an
Impression



Venue: Park
Poem,
Music, Painting, Story Telling,
Book Promotion
Guests

kissan mela
and Agri-Fest



Chief Guest: Dr. Arun Kr. Sahoo

12:30pm-3:00pm



Lunatic 7:30pm

Amrita Nayak
Playback Singer



Swadhin
with band



& DJ
Night
with 2 DJs



Friends

Achutananda Padhy

PMKVY, Paralakhemundi, Odisha

**We make so many fiends
Some become dearest
Some become special
Some go abroad
Some change the cities
Some left us
We left some
Some are in contact
Some are not in contact
Some don't contact us because of their ego
We don't contact some because of our ego
Whatever they were
We still remember
Love, miss, care for them
Because of the part
They played to make memories
Its friendship!!**





Biswajit Jena
B.Tech. Agriculture, CUTM

The rituals of Lord Jagannath are related to our ways of life. The Lord is adored as the divine head of every Hindu family. For this reason, unless we first invite Him, we do not perform our social functions. Likewise, when we set out on any journey, we remember Him first and then we move out in our mission. Similarly many don't start their day, unless they pray to Lord Jagannath first and surrender themselves at His lotus feet. This is how we obey and respect the Lord in our day-to-day life. Lord Jagannath is the end-all and be-all of our life. He is the presiding deity of every Hindu House in Utkal Pradesh.

Sri Jagannath is the Lord of the universe. His 'Dham' i.e. Puri is one of the pilgrim centres of the world. He is seated on the Ratnavedi of the Grand Temple. The 'Prasad' offered to Him and later to Maa Bimala in the Grand Temple is known as 'Mahaprasad'. No Prasad offered in any other temple in India has the spiritual recognition of Mahaprasad and this way, the Mahaprasad of the Lord is most unique in the spiritual order. There is a belief among the Hindus that if 'Nirmalya' is given to a person on his deathbed, he is sure to have a place for himself in the heaven after his death following atonement of all his sins. In that way, Mahaprasad and Nirmalya are very auspicious. This is the illustriousness of the Jagannath cult and Jagannath Temple at Puri.

Cooked Mahaprasad in all its best conditions can at best be preserved for one day. It loses its taste when it becomes stale. So Mahaprasad of cooked rice and other dishes prepared in the Grand Temple are taken to other places only when it is hot and fresh. This is mostly done on festive occasions. But Nirmalya which

is akin to Mahaprasad can be used at any time save certain items like the garlands of the Lord etc. which are not long-lasting like certain items of Mahaprasad.

Mahaprasad is of two types. One is 'Sankudi' Mahaprasad and the other is 'Sukhila' Mahaprasad. Both the types are available for sale in Ananda Bazaar of the Grand Temple.

'Sankudi' Mahaprasad includes items like rice, ghee rice, sweet rice, mixed rice, cumin seed and asaphoetida-ginger rice mixed with salt, and the dishes like sweet dal, plain dal mixed with vegetables, mixed curries of different types, 'Saag', 'Khata', porridge and so on. All these are offered to the Lord in ritualistic ways. It is said that every day, 56 types of Prasad are offered to the Lord during the time of worship and all these are prepared in the kitchens of the Temple and made available to the devotees in Ananda Bazaar sold by the Suaras who are the makers of the Prasad. Aside from these 'Prasads', a type of dry sweetmeats is also prepared by the Suaras and made available to the devotees in the same way as the 'Sankudi Mahaprasad' is sold. This is known as 'Sukhila Mahaprasad'.

Widely used, the term Kaibalya also means different types of spiritual activities like Nama Kaibalya, Sannidhya Kaibalya, Lila Kaibalya, Mukti Kaibalya and Kaibalya Baikuntha.

There is another story which needs mention in this regard. A legend has it to say that once Sri Narad Maharshi reached Brajapur when Lord Krishna was immersed in His cosmic Lila with Radha and other Gopis. Radha was feeding her own hand-cooked food to Krishna. The Lord was enjoying the food unmindful of the surrounding where the Lila was going on. Sri Narad consumed some morsels that had fallen from the mouth of Srikrishna. After that, he went to Kailash in the Himalayas. Lord Siva saw bits of morsels on Narada's mouth. He could know from the morsels that those were the offals of Lord Krishna. He was very much delighted. He had the morsels with utmost satisfaction. At that time, Maa Parvati



was present in Kailash. She witnessed the Lila of Her consort and wanted a morsel from Narad's mouth. However she could not get anything and so she was deeply distressed. In deep sorrow, Parvati prayed to Lord Krishna who came to know all the details of the spiritual happening that had taken place in Kailash. At last, to satisfy Parvati, He gave Her a boon saying that in Kaliyuga, He would appear at Puri in Utkal Pradesh, as Lord Jagannath and Mata Parvati would appear there as Bimala and every day, She would have the Prasad of the Lord after which His Prasad would come to be known as Mahaprasad.

In Chaitanya Charitamrita, Sri Chaitanya while, narrating the glory of Mahaprasad, has said, "Prabhu, having taken Mahaprasad, my divine yearning has been fulfilled and I feel that You have given me shelter at Your lotus feet. This is all due to Your unfathomable compassion and profound generosity. I now feel that I am released of the material bondage and achieved Your blessings in my life."

Tantra worship had been propagated and established by the time king Jajati, the descendant of the Soma dynasty conquered Orissa. The Soma Vamshis themselves practised Saivism. But prior to them, by virtue of the patronage from the Bhaumakaras, Saivism, Saktism and Tantrism became popular and gained the status of state religion. After Jajati installed Jagannath at Puri and made rules for his worship, he, out of respect for tantra, promulgated the Lord's worship as per tantrik methods. In the tantrik cult, Lord Jagannath is regarded as Bhairava and the Goddess Vimala as Bhairavi.

"Utkala Navi Deshescha Bimala Purushottame ,
Bimala Bhairavi Yatra Jagannathastu Bhairava.

So the Bhairavi Chakra has been drawn near the Ratna Simhasana or Vedit in the Jagannatha temple. Sri Jagannath is installed on this Srichakra. Image of Bhairava was also installed on the Ratna Simhasana.

It is learnt from a report of James Hunter, dated 6.12.1806 that the image was removed from Ratna Simhasana afterwards.³In deference to the Tantric

Cult, Jajati installed Jagannath as a tantric deity in Puri. This tantric traditions developed as a part of Vajrayana from the Buddhist era. In the tantric tradition anything offered to Lord Jagannath cannot be contaminated by caste or touch. Regarding this Prof. Prahallad Pradhan, quoting from "Hevajratantra" and "Guhyasiddhi" says, "The practice by devotees of taking food offered to the Panchen Lama has some similarity with the communal eating of food offered to Lord Jagannath by the devotees of the Hindu community, irrespective of caste.

Kularnava Tantra also states that after initiation to Bhairavi Chakra people of different castes shed this caste difference. But they again develop this difference if they refrain themselves from Bhairavi:

"Prabutte Bhairavi Chakre Sarve Barnah Dwi-jatayah,

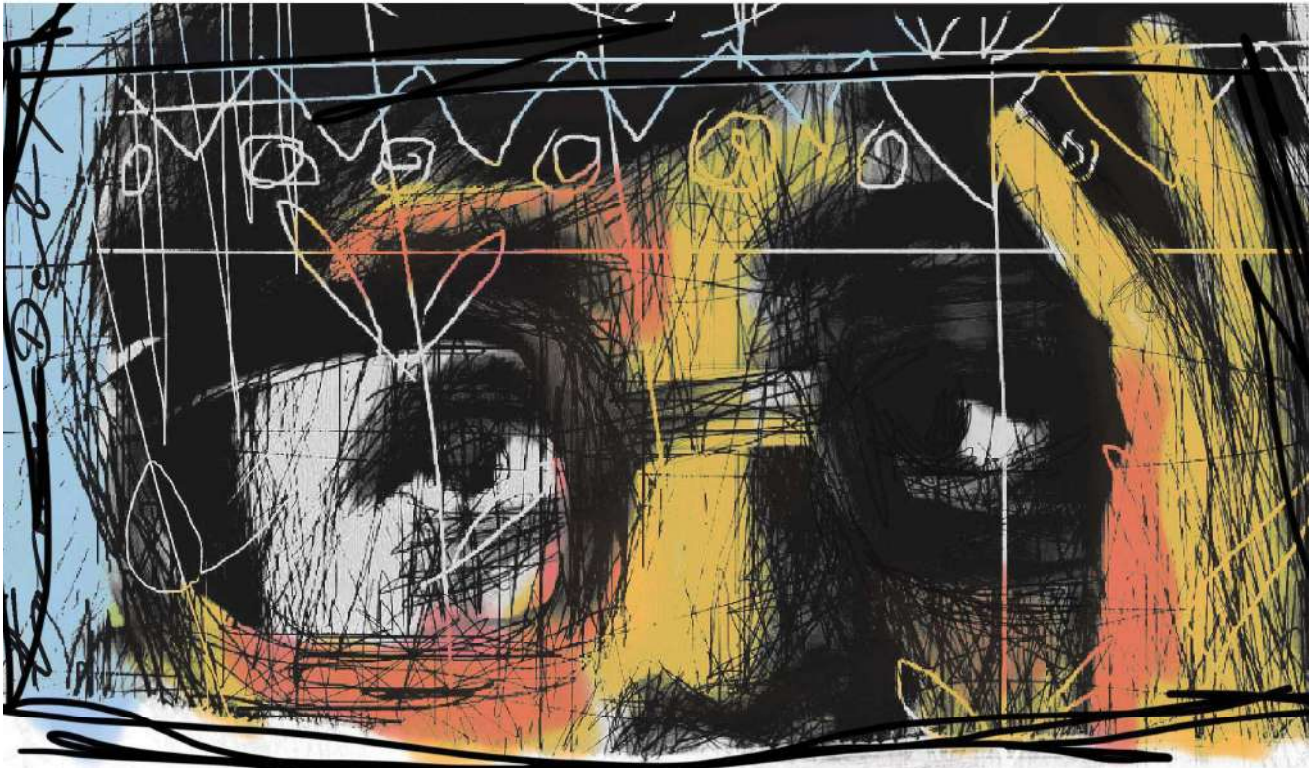
Nibutte Bhairavi Chakre Sarve Barnah Pruthak Pruthak.

" Pandit Nilakantha Das says that the place where offerings are made to Jagannath is called Bhairavi Chakra. That is why Ratnavedi is called the Lord of Bhairavi Chakra or Tantrapitha. So the tradition of sharing Mahaprasad found in Jagannath temple is based on the tantric tradition (Parampara) associated with the cult of Vajrayana. Prior to installing Lord Jagannath at Puri, Jajati Keshari must have been aware of the firm tradition followed in worshipping the Lord. By that time, Lord Jagannath had been honoured and recognised as the state deity. So while reinitiating the Lord's worship he might not have thought it proper to violate that strong tradition. On the contrary adhering to that tradition might have helped in realising his political ambition. He promulgated the practice of mass sharing of Mahaprasad by the devotees, irrespective of caste or varna and such practice must have helped in fostering a sense of unity among his subjects. Thereby, he not only recognised a long followed rich tradition, he also must have attained a political mileage.

The Extraordinary in the Ordinary



Kalapoorna Nalla
Director, Centurion Group of Schools



Have you ever been intrigued and fascinated by the way a magician creates an illusion and takes the audience to a state of excitement and exhilaration? They are experts to bring people to a space where the ordinary becomes extraordinary. Each one of us is a magician when we start exploring the aesthetics of the environment. We need to think differently what we deem to be ordinary and what we believe to be extraordinary. As a society, we have raised the benchmark of the extraordinary so high that for many ordinary it seems something unattainable and unachievable. We ordinary people are extraordinary only if we knew about it. A comprehensive way of understanding to find

the extraordinary in the ordinary, changes one's life. It makes us learn to appreciate the little things in our seemingly ordinary lives. Finding the extraordinary in the ordinary is a way to practise gratitude. In this tech world we marvel at the fact how everything is available at the click of a button. However, we have forgotten to respect the ordinary wonders around us. We often go hunting and seeking for things that make us happy. A lot of us perceive our lives to be ordinary. We work hard, maybe live modestly; and we are unhappy because we keep comparing ourselves with the others who are better off. Again, we may be working hard to keep pace with the rat race, maybe make good money



in the journey; but still unhappy because we keep comparing our lives with the others who are happier.

But the secret is that we all live extraordinary lives. We need to pay attention and be grateful for what we have in our lives. This will foster a sense of responsibility for all that is around us and eventually makes us creative. Life is pretty extraordinary when we appreciate the presence of our family and spend time with them

Life is pretty extraordinary when we do simple things with the friends we love, the friends who allow us to be the way that we are.

Life is pretty extraordinary when we pause and take a moment to admire the beautiful nature.

Life is pretty extraordinary when we acknowledge the rhythm and pattern in the mundane things going around us.

Life is pretty extraordinary when we acknowledge the presence of technology around us to make our lives comfortable.

Life is pretty extraordinary when we become determined to be the best version of ourselves by following our passions. Human willpower is extraordinary.

Life is pretty extraordinary when we visit our grandparents and we acknowledge how traditions and heritage are passed down generations. Ancestry of ordinary people leaving legacies for generations to come is extraordinary.

Life is pretty extraordinary when we live each extra moment with our dear and near ones.

Life is pretty extraordinary even when we are sad. There is a beauty that we need to appreciate in the melancholy brokenness of life.

Every day the sun sets to rise again telling us that each new day we live is something extraordinary.

Each one of you born are extraordinary! And you know what You still are!



**Dream of the Northern lights,
Painted in the sky of Fairbanks in Alaska
Wondering aimlessly through a sea of thoughts
A senseless tale beyond conscious understanding
Evaporated by the blinking eyes of a waken being
Nothing more than a mere dream,
Dreams are too high for swallows to fly,
Too wide for whales to swim,
But he and she, and all of we,
Can dream to be whatever we see
Dreams are a bittersweet mirage
Tempting our cold heart.
Our thoughts are swirling in circles
But no reward if we cross start
Just like the northern lights
Dreams are fantasy without hard fights.**



Ramie: Strongest Bast Fibre Yielding Plant



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1. Early History

Ramie or *Boehmeria nivea* (L.) Gaud. is one of the oldest vegetable fibers in the world and has been used by human civilization for thousands of years. It is a member of Urticaceae or Nettle family. This fibre was popularly used in China, Japan, Egypt, even in India in ancient times. It was used to wrap the mummies in Egypt during the period 5000 - 3000 B. C. In Indian literature, ramie finds its reference in “Abhijanana Sakuntalam”, written by Kalidasa in 400 A.D. It is known to have grown in China for many centuries before cotton was introduced by Chinese in 1300 A. D. According Sarma 2008, ramie is native of Central and Western China, though also found in Japan, Indonesia, Malaysia and other South-East Asian countries.

2. Indian Scenario

In India, it is widely grown in Western Ghats, Arunachal Pradesh, North Eastern region of India, especially in Assam. In Assam, ramie is often referred as “Rhea”. Guwahati, capital of Assam, was previously known as Rheabari which literary means native land of ramie. Indian Council of Agricultural Research has developed Ramie Research Station (1959) in Sorbhog, a remote village in Barpeta district of Asam, which is a substation of Central Research Institute of Jute and Allied Fibres (ICAR-CRIJAF), Barrackpore, West Bengal. The leading global producers of ramie are China, Taiwan, Korea, Philippines and Brazil.

3. Physio-chemical Characteristics of Ramie Fibre

Ramie also known as China grass can be harvested up to 6 times a year. It produces a large number of un-branched stems from underground rhizomes and has a crop life from 6 to 20 years. The fibers need chemical or enzymatic or chemi-microbial treatment to remove the gums and pectins found in the bark. Each strand of ramie fibre is single-celled, flattened in cross-section, irregular in shape, has thick wall and a well-defined lumen, and taper to rounded ends. The fiber is very fine, silk-like, lustrous and naturally white in colour. Fibre walls show prominent longitudinal striations. The morphological properties of ramie fibre are shown in Table 1 (Kalita et al., 2013).

Table 1: Morphological properties of ramie fibre

Properties	
Fibre Length (mm)	
Maximum	60.40
Minimum	30.00
Average	40.00
Fibre diameter (μm)	
Maximum	20.00
Minimum	8.00
Average	10.00
Cell wall thickness (μm)	2.80
Lumen width average (μm)	12.80

3.1 Bio-chemical composition of fibre

Ramie fibre is a cellulosic fibre just like cotton,

linen, and rayon and it contains 91% alpha cellulose, 5-13% hemicelluloses, 1% lignin, 2% pectin and 2-4% ash (Brink and). The hemicelluloses and pectin together cements the fibre bundles strongly such that single fibre cannot be obtained easily. Thus hemicelluloses and pectin in ramie together form the gummy substances. The Indian variety of ramie fibre consists about 19-27% of gum which must be lowered to 5-6% to obtain spinable quality fibre.



3.2 Physical properties of ramie fibre

Generally ramie fibre is strong, lustrous and durable. The tensile strength, absorbency, drying properties of ramie fibre is often superior to cotton, flax and jute. The ramie is considered as the finest among all textile fibres and its fineness is comparable only to that of cotton and silk. The ultimate fibre length and tenacity of ramie is highest among all bast fibres. Some physical properties of this fibre are compared to jute and cotton in Table 2.

- pose.
- It is a unique fibre which is finer and stronger than any other natural fibres.
- The filament tenacity of ramie is 40 – 65 g/den.
- Ramie has exceptionally long ultimate fibre cell which ranges from 120 – 150 mm approximately.
- Ramie fibre has got a natural luster and

Table 2: Physical properties of three major textile fibres

Physical properties	Ramie	Jute	Cotton
Length of ultimate cell (mm)	20-250	0.8-6	15-60
Length to breadth ratio of ultimate cell	3500	110	1300
Tenacity (g/tex)	40-65	30-50	20-45
Extension at break (%)	3-4	1-2	6-7
Gravimetric fineness (tex)	0.4-0.8	2-5	0.1-0.3
True density (g/cc)	1.56	1.45	1.55

4. Advantages of Ramie over Other Fibres

Ramie, the queen of bast fibres, has some unique characteristics which makes it different from other crop fibres. Some of the major characteristics are as follows:

- The major chemical composition of ramie fibre is cellulose, hemicelluloses, pectin and negligible amount of lignin, which makes it suitable to blend it with other vegetable fibres for textile purpose.
- a shiny appearance just like silk, depending on the method of extraction and degumming process.
- Ramie fibre is known especially for its ability to hold shape, reduce wrinkling, and introduce a silky luster to the fabric appearance.
- It can be spun through almost all methods of spinning including – ring spinning, open-end spinning, bast fibre spinning, etc.
- Ramie fibre is whitest of the white and does not change colour with exposure

to sunlight.

- Ramie fabrics transmit heat, absorb moisture and also give it up quickly with no shrinking and stressing effects on it.
- It takes up dyes readily.
- Even after forty washings, tensile strength remains 93% in case of ramie, while it goes down to 82% in cotton, 81% in spun rayon and 34% in flax.
- Ramie fabrics have higher resistance to moth and mildew than other cellulosic fibres besides being resistant to action of alkalis, light and insect attacks.
- It has anti-microbial property and finds importance as a suture material in wound healing surgeries performed on mice.
- Nanocellulose, an important material for bio-medical research, can be synthe

bial degumming that needs to be done before the fibre is ready to go in market. Though there is a huge demand of ramie fibre in international market, still the world production of ramie is not up to the mark. China is the leading pro-



Ramie Fibre



Ramie Plant

sized from ramie fibre.

5. Why ramie is un-explored in India?

Despite of its excellent physical and unique chemical characteristics, ramie remains commercially un-explored in India because of its costly post-harvesting processing. The removal of gum from fibres requires cost effective and laborious process. Moreover, farmers do not have adequate knowledge of chemical or micro-

ducer of ramie in global market. There is a huge scope of growing textile grade ramie fibre in India, provided a suitable degumming technology is being standardised (Banerjee et al., 2014). Moreover, research is going on to develop low-gum-variety of ramie through different molecular approaches.

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Do you know the value of a grain which you waste during your meals?

To produce rice it takes a long time, near about 100-150 days and each grain that we waste carries the capacity of producing 80 – 100 more grains that can feed a poor man's stomach.

A grain when it falls on soil, survives itself from both the living and non-living factors of the nature like ants, soil micro fauna and searches for water and moisture to germinate itself. It spreads its root deep into the soil profile just to absorb water and food for its metabolic functions to be carried out.

It withstands against many edaphic factors of climate like from intense sunlight, heavy winds, less oxygen availability but still it strengthens itself gaining energy from the wastes that human exhale (CO₂), bio-degradable wastes, animal manures, etc.... and in turn supplies oxygen, food and its beautiful flowers gives immense pleasure and lovely sight to human beings.

When a small grain is productive, what are we brained creatures doing? Let's just think

- Think for a change -
- Think before wasting a single grain or food.
- It struggles to provide us food.
- Being autotrophic it does its work perfectly but why don't we?
- So let's start sowing seed now.
- Let us allow plants grow along with us and make this earth a beautiful and colorful ecosystem to live in.

Sow seeds – go green – save earth
Progress is impossible without change.
Nature always wears the color of the spirit.
The nature laughs in the colors of flower.



What's it all about?



Prajna Pani

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Techno-optimism

**Drives me to the realm of Quantum Supremacy
Should I feel happy about the Frozen Robot Syndrome?
Or get Shook by Biohacking?**

**Indulge not in Nonversations, Mansplaining things
It's pretty Douchy to Peoplekind.**

**Never feel 'Sorry' for being a Noob
Rejoice in being a Snowflake
It's time to think what rhymes with the Impossible!**

Nano-carriers Enhancing the Activity of Phytopharmaceuticals



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Drug delivery systems are bioengineered technologies for targeted drug delivery or controlled release of bioactive molecules. In last few decades with the help of biomedical engineering we have understood the biophysics of drug delivery and the associated barriers. Advancement in separation methods, structural and biophysical techniques has enabled us to find the essential chemical constituents of traditionally used herbal drugs. This has led to identification of numerous tannis, flavonoids, and terpenoids as bioactive constituents of the ancient herbal drugs. Though these bioactive molecules are highly soluble in water, they have poor bioavailability, because of their poor absorption, inability to cross the cell membrane, and because of high molecular weight. Here, the nano-carriers of drug can be helpful to deliver the bioactive component of herbal drug. According to World Health Organization report, 80% of the global population are dependent on the traditional drugs for treatment. Which indicates the importance of traditional drugs in common practice even today. This article will shed light on the role of nano-drug carriers in phytopharmaceutical drug delivery and associated recent advancements that are meant to improve the efficacy of the herbal drugs.

Majorly there are three classes of nano-particle based drug carriers for phytopharmaceutical drug delivery those are;

1) Polymeric nanoparticles (PNP): These nanoparticles are made from biodegradable polymers which are biocompatible as well, noteworthy to mention that PNP can be targeted (1). PNP are known to en-

hance drug solubility, there by reduces the therapeutic dose. The PNP may be used to microencapsulate drug moiety (nanocapsules) or as nanospheres (Figure 1a) to bind with drug molecules. Poly-L-lactic acid (PLA) and Poly-L-glycolic acid (PLGA) are extensively used as copolymerizing agents for preparing PNP. It is interesting that the root extract of *Phytolacca decandra*, when microencapsulated in PLGA PNP enhanced the drug bioavailability when tested in vivo and on A549 lungs cancer cell in vitro (2). In another observation, sodium alginate chitosan nanoparticles when used as drug carrier for of *Ocimum sanctum* leaf methanolic extract, demonstrated enhanced and long lasting antimicrobial activity in comparison to the methanolic extract alone and the nanoparticle alone (3). Recently *Dolichos biflorus* seed extract was loaded on a amphiphilic triblock BAB copolymer coated with albumin protein, produced enhanced anti-inflammatory activity of the polyphenols in the plant seed extract (4).

2) Solid lipid nanoparticles (SLN): These are colloidal carrier systems that combine colloidal systems like emulsions, liposomes with PNPs (Figure 1B). Incorporation of curcumin into soy lecithin solid lipid nanoparticle is reported to improve the oral bioavailability of the drug (5). Similarly a study showed enhanced solubility, improved cutaneous absorption and better anti-inflammatory efficacy of triptolide (isolated from *Tripterygium wilfordii*) when incorporated into SLN of tristearin glyceride and steric acid (6).

3) Liposomes: Drug delivery systems with tiny vesicles comprising of concentric lipid bilayers (Figure 1C) filled with aqueous solvents containing phytopharmaceuticals. Liposomes are subdivided into

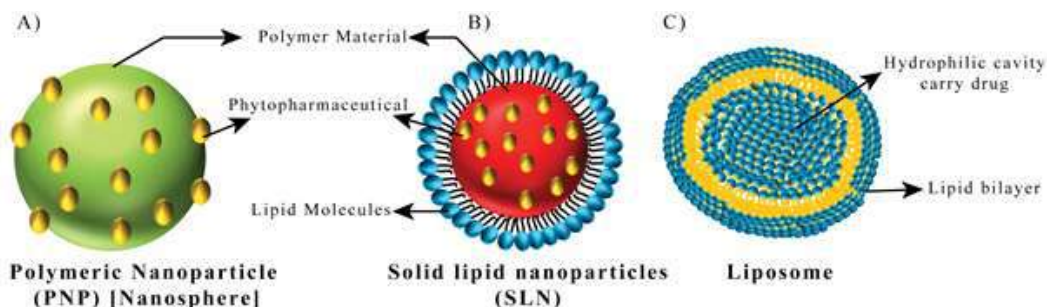


Figure 1: Schematic representation of different nanoparticles loaded with drug; A) Polymeric Nanoparticle, B) cross section of a Solid lipid nanoparticle showing drug binding to the central polymeric core, C) cross section of a Liposome showing inner aqueous cavity.

several classes depending upon their size, number of lamellae, and charge on the surface. Typically small unilamellar vesicles displays a size of 25-100 nm, while large unilamellar vesicles have diameter ranging from 100 nm to 1µm and giant vesicles have a diameter greater than 1µm (7). Silymarin, extracted from *Silybum marianum* known to have hepato-protective activity, but has poor oral absorption i.e. around 20-50% only. When silymarin is incorporated into hybrid liposome of lecithin, cholesterol, stearylamine, and tween 20 at a certain molar ratio, the formulation exhibited improved oral absorption and thereby showed enhanced hepatoprotective activity (8).

Future Perspective

So far several biocompatible polymers which can be used to prepare nano-particle based drug delivery systems are known. However their clinical applicability and scalability are yet to be proven. That gives an open field for research.

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Far From Home



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The day you left home for higher studies you never realized that, that was the last day at your home no matter how many times you have visited your home to enjoy holiday. it's never been the same you are now someone who stay's away and comes home to spent the vacation. You will always miss your old life.

Shifting to a totally different city made me realise that even though surrounding change the love for your family and friends remains same. This year for the first time I was away all alone in a place where my family's love and care was far apart from me. Living away from family for a specific time period leaves some enduring experiences in life. it's a totally different experience you would love to live and laugh. You make new friends and some of them turning into your friends for life. You doing your mom's and dad's job that they perform to make your life comfort suddenly you are all out from those god gifted blessing and have to deal with all problems, roller coaster of emotion to handle all alone and if you are a bit lucky you will get a stupid friend may be good

roomies as your partners for that ride. Having your best person, your best friend and a stupid brother in next boys hostel feel like its your second family very near to you and will always be here whenever you need them to. Dealing with your mid night butterflies with a cup of maggi, turning into a simple and a basic person at the end of month as you run out of money getting that huge big smile when you see good food, dancing without reason, clicking useless and meaningless memories and those pointless and aimless intense discussion will always make you laugh though out your life having memories for your entire life.

Best thing happened this year? May be the Hostel.



Hyperspectral Remote Sensing for Agriculture



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Advanced analysis of natural resources particularly crop and soil requires high spatial and spectral resolution data to increase producers' sustainability and environmental protection. The studies pertaining to crop growth requires assessment and quantification of biochemical and biophysical attributes. Better spatial resolution cannot provide satisfactory analysis results because of limited number of wavebands in multispectral data. The multispectral broad band based remote sensing is not capable of providing accurate quantitative estimates of biochemical properties because of low spectral resolution. This limitation of multi spectral remote sensing data leads to the concept of hyperspectral remote sensing particularly imaging spectroscopy. The hyperspectral remote sensing data comes with hundreds of narrowly defined contiguous bands and offers very minute details about plant biochemical and biophysical attributes related to its health through various spectral regions. For instance, changes in chlorophyll a and b are characterised by early wave bands in 350 to 2500 nm range data. Spectral Properties of vegetation the hyperspectral remote sensing data can be acquired through field based spectroradiometers, satellite borne sensors or airborne sensors. The spectroradiometers are very useful instruments in agriculture related studies. Fig1 shows a typical vegetation spectrum of reflectance for rice crop recorded by ASD fieldspec-3 spectroradiometer. It records the reflectance of the objects in 350 to 2500 nm wavelength region with 1nm inter-

val. Using this reflectance spectrum data for crops and soils, very useful studies can be executed. The vegetation spectrum (Figure1) shows the regions of absorption for water, chlorophyll, etc. The visible (VIS) region of spectrum is mostly used for chlorophyll a and b related studies. The near infrared (NIR) region is governed by cell structure of plants and the shortwave infrared (SWIR) regions Shows the absorption troughs for water and also have reflective properties for leaf biochemical parameters like protein, lignin and cellulose, etc. The region between 690-740 nm is called red edge position where the reflectance changes from very low in the chlorophyll red absorption region to very high in the near infrared because of leaf and canopy scattering. This region is found to be sensitive to total canopy chlorophyll by many researchers. This region is also an indicator of water stress in plants. Besides the spectroradiometer data, the Hyperion sensor is also a source of satellite borne hyperspectral data. Figure 2 shows the spectral reflectance profiles of various features extracted from Hyperion data.

Many airborne hyper spectral sensors are also available like Airborne visible/infrared imaging spectrometer (AVIRIS) and Compact Airborne Spectrographic Imager (CASI),etc that provide high spectral and spatial resolution, high temporal resolution and precise ground overage with high geo-location accuracy. Figure 3 and Figure 4 shows spectral responses of crop plants due to change in biophysical parameters i.e. relative water content and



chlorophyll respectively. These figures present the sensitivity analysis for relative water content (RWC) and chlorophyll a & b (Cab) in crop plants.

Hyper spectral Remote Sensing Data Analysis for Agricultural Crops

Hyper spectral remote sensing provides many ways to analyse the crop health to develop prediction models for crop health parameters as well as modelling for monitoring of timely water deficit stress in crop etc. The basic analysis on a hyper spectral data can be done using spectral indices (ratio of 2 or more bands) Hyper spectral data comes in narrow contiguous bands, therefore minute changes related to a parameter of interest can be observed and the most optimum wave bands for that parameter can be extracted for prediction model development. This prediction model may be useful for future assessment of that parameter. The most sensitive/optimum bands related to an important parameters of crop can be detected using various approaches like lambda by lambda plotting, multivariate modelling techniques i.e. PCA, PLSR, MLR, SVMR,RFMARS etc., wavelet analysis and artificial neural networks. The lambda by lambda plotting is useful for development of a new effective hyper spectral index. For instance, The vegetation water content which is a vital biophysical parameter of plants need to be monitored at precise timings because lack of water content in plants will lead to low yield of crop. The reflectance data of the target crop and simultaneously measured any parameter of crop related to water content can be used to develop a new hyper spectral index (ratio index or normalized difference index) for assessment of water content and a prediction model can also be developed for timely identification of water status in crop. The radiative transfer modelling approach (e.g.-PROSAIL model) is also used by many researchers to retrieve the vegetation parameters for monitoring of crop health status

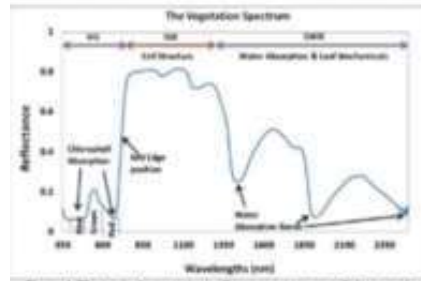


Figure 1. The typical vegetation reflectance spectrum of rice crop in 300 nm to 2500nm range showing details

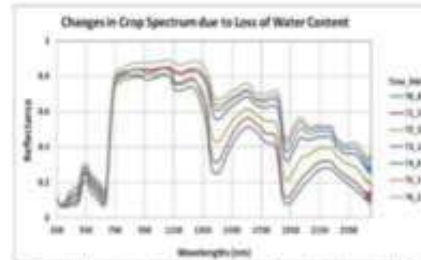


Figure 2. Changes in reflectance spectrum of crop due to water deficit stress. With loss of water content, spectra in SWIR region goes higher because SWIR region is dominated by water content in leaves

There are many other areas where hyper spectral data can be utilized in agriculture. The most common applications where hyper spectral remote sensing data is extensively used are early detection & diagnostics of plant diseases, weeds & pests; prediction of yield & crop growth monitoring; nutrient deficiency diagnostics & stress detection; and crop variety discrimination. Early detection of diseases in plants enables quick and targeted responses. The yield prediction provides policy makers to get insights of the production in a region and thus enables to take an effective decision. The timely detection of environment stresses such as extreme temperature, nutrient deficiency and water shortage in crops enables the precise prescription of required quantity of macronutrients i.e. Nitrogen, Phosphorus and Potassium (N,P,K). Remote sensing's wide area coverage and hyper spectral data's rich spectral resolution helps greatly to monitor these environmental stresses. In a nut shell, the hyper spectral remote sensing data has ample capability to provide satisfactory analysis results for monitoring health of the crops. This enables effective decision making for the farmers and policy makers. ***



The shadow of my life...



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Met you after a fizzled day
With suppressed words and obsessed mind
Can't wait to express those before you
The incessant shadow of my life

Life tugged
But you didn't
Being in the darkest phase
I found your arms wrapped over my body

Words shortened
But emotions overcame
Worries lessened
And joy overwhelmed

Got a print of my life
Within you
You are the shadow
To my life's eternal hues.

National Youth Parliament in Collaboration with the United Nations



Jasti Pavan Teja

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The moment that I had come to know that I have been selected to represent Odisha in the nation's biggest youth parliament, I couldn't believe it. I felt a sense of joy and at the same time I knew that I will be carrying on my shoulders the hopes of an entire state. I could only remember the words our Honourable Prime Minister shared - the idea of youth becoming the voice of India on 31st December, 2017. He said "I got an idea whether we could organize a mock parliament in every district of India? Where the youth could sit together and brainstorm about new India, find ways and chalk out plans. How could we realize our resolves before 2022? How could we build an India of the dreams of our freedom fighters?" There are very specific preparations that must be made before attending UN: "I did a number of simulations to help me prepare. Mr. Brijesh helped us a lot with the research on the topics. I learned about how to respond to the parliamentary process." In a month leading up to the UN Parliament I had to also learn about the United Nations structure and how proceedings works and how to navigate that in a debate, On

17th September, the time I was leaving to the airport, I kept thinking of how I am going to utilize this plan to share my views to policy makers and implementers to take it forward. Am I capable of presenting them? This all seemed new. I asked Snehasis Pal "Will we be able to take it forward?" Without exaggerating, he said "Yes, we will" with confidence. After we arrived at the Indian Social Institute To say the least, we both were very excited to take part in this unique venue. We all stayed near the Indian Habitat Centre, so the setting was perfect for intense preparations both mentally and physically. All in all, it felt all very good during the morning prior to the start of the Parliament.

Day One

I saw a diverse group of intellectual delegates from many different states, and some countries. It made me feel so delighted to step into the United Nations house. In the morning session, I was given a placard of Bhartruhari Mahtab, so I had prepared to fill his shoes for the day. Just like every parliament the session started with an Oath and the President's Address to both the Houses of Parliament. Opening speeches had begun. On the first day we brought all of our resolutions into one. We worked as a team to bring our different ideas together into a lengthy resolution that was effective, comprehensive and detailed. I've done other debate competitions but this format is very particular, diplomatic and seemingly with its own language like



“Point of personal privilege” or the specific way a resolution is to be written. I was intimidated into silence and didn’t dare speak at the start. I wrote a resolution on Farmers suicide. The issues we discussed and debated were about many. I discussed problems about crop loss, indebtedness, and loss of land, and landlessness, modernization and about how we need technological advancement of agriculture which is very important for increasing the productivity. I felt I should put these forward as an agriculturist, I racked up the courage to make a speech in favour of the resolution; it was successful and far less intimidating than I thought it would be. I was glad I did it and for the rest of the conference I participated by asking a few challenging questions.

Prominent national meetings like the General Debate at the General Assembly are important platforms used by governments to communicate that they are engaged in noble causes, supportive of national interests and principles and constrained by external factors beyond their control from delivering to their people everything the people might wish. After seven hours of intense negotiation with seventy other delegates, I remember the exact phrase I told my mom when I called her afterwards “I want to make a change”. The moments of crisis and conflict, of negotiation and leadership—these were the moments I longed for... sitting in a boardroom striking a secret deal...the moments that made history, Day Two Second day of the Parliament and final day of UN NYK, We were graced with the presence of Minister of State (I/C) for Youth Affairs and Sports Col Rajyavardhan Rathore and the president of United Nations volunteers Arun Sahdeo. My meeting with Mr. Arun Sahdeo was brief but yet profound. The session had begun. The reso-

lutions made on all the issues were debated by speeches being made for and against and questions and amendments made. Thorough research was needed to understand these problems and to write a resolution. I did a quick research with the help of some friends over certain things which I am not familiar with. This meant I had to learn the opposition parties’ position on the matter and write a plausible detailed solution to one of these issues. It’s an interesting and challenging process and it requires an immense amount of effort and work before the sessions, I hadn’t actually heard of serious problems of education in Assam nor realized that 27% of girls in India are married before their 18th birthday and 7% are married before the age of 15. According to UNCIEF, India has the highest absolute number of child brides in the world – 15,509,000. This horrendous tradition is still being practiced in the world and requires immediate attention. During the General Debate (and at the closing session) of the General Assembly, the eyes of many are on the Heads of State or other leading representatives of a Member State. The nation’s media is present (and the Department of Public Information streams the proceedings on the Internet). In addition, there may be an extensive presence of observers from non-governmental organizations, who will also report via their own channels. A hard copy version of the General Debate statement is also distributed. Speakers are therefore addressing several audiences at once, who may receive their message through a number of channels both direct and indirect. I met a lot of interesting people, having listened to their opinions and questions about Odisha, which was very useful our lives are never the same after this.



Edible Mushroom: Power beyond the Thinking



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Mushrooms, the macro fungi have been consumed since earliest history; from past years, Greeks believed that mushrooms provide strength to warriors in battle and the Romans perceived them as the “Food of the Gods.” From centuries, the Chinese people has treasured mushrooms as a healthy food, an “elixir of life.” They have been a part of the human culture for thousands of years and have con-

they are cholesterol-free. These are the source of protein and an important amino acid i.e. Tryptophan which is absent in many cereals and foods is found in mushroom. Different species of mushrooms are considered under this category – *Agaricus bisporus*, *Pleurotus streatus*, *Lentinula edodes*, *Auricularia auricula-judae*, *Volvariella volvacea*, *Flammulina velutipes*, *Tremella fuciformis*,

Species	Fructose	Mannitol	Sucrose (g/100 g fresh weight)	Trehalose	Protein (%)	Fat (%)	Carbohydrate (%)	Energy Kcal/kg
<i>Agaricus bisporus</i>	0.03	5.6	nd	0.16	14.1	2.2	74.0	325
<i>Lentinula edodes</i>	0.69	10.01	nd	3.38	4.5	1.73	87.1	772
<i>Pleurotus ostreatus</i>	0.01	0.54	nd	4.42	7.0	1.4	85.9	416
<i>Pleurotus eryngii</i>	0.03	0.60	0.03	8.01	11.0	1.5	81.4	421
<i>Agaricus blazei</i>	0.27	60.89	nd	5.74	31.3	1.8	59.4	379

Source: Carneiro et al. 2013. Nd- not detected

siderable interest in the most important civilizations in history because of their sensory characteristics; they have been recognized for their attractive culinary attributes. Mushroom will validated for its cosmopolitan and diversified wide application in human beings life-

(A) Edible property or alternative protein source

Nowadays, mushrooms are popular valuable foods because they are low in calories, carbohydrates, fat, and sodium: also,

Hypsizygus tessellatus, *Stropharia rugosoannulata*, *Cyclocybe aegerita*, *Hericium erinaceus*.

(B) Nutritional enrichment

Mushroom are the source of variable nutrients, including selenium, potassium, riboflavin, niacin, vitamin D, proteins, and fiber.

(C) Pharmacognostical value

Once Hippocrates said, “Let the food be the



medicine and the medicine be the food.' And mushroom is the best example among the foods as they are well known for their healing capacities and properties in traditional medicine. Mushrooms are reported to have some beneficial effects for health and treatment of some diseases such as prevention or treatment of Parkinson, Alzheimer, hypertension, and cardiovascular diseases. They are also utilized to reduce the chances of cancer and metastasis due to antitumoral characteristics. Mushrooms act as antibacterial, antidiabetic, antiallergic, immunomodulating and cholesterol lowering agents; additionally, they are important sources of bioactive compounds. As a result of these properties, some mushroom extracts are used to promote human health and are found as dietary supplements.

(D) Antimicrobial property

Mushrooms are one of the additional sources of new antimicrobial compounds, primarily secondary metabolites, such as terpenes, steroids, anthraquinones, benzoic acid derivatives, and quinolones, but also of some primary metabolites like oxalic acid, peptides, and proteins. *Lentinus edodes*, the most studied species, seems to have antimicrobial activity against both gram-positive and gram-negative bacteria.

(E) Drug design and genetic engineering

Since last 50 years, the medicinal industry has transformed greatly by using the fungal secondary metabolites and producing the blockbuster drugs of enormous therapeutic and agricultural potential. Mushrooms are known to have wide spectrum antimicrobial compounds which can be used in drug industries for production of potential medicines. The methanolic extract of well-known mushroom, *Agaricus bisporus* (Button mushroom) is reported to control *Staphylococcus* spp., *Bacillus* spp. etc. Moreover, fungal biotransformation of steroids for the industrial production of steroidal hormones repre-

sents one of the key successes in biotechnology.

(F) Source of Income

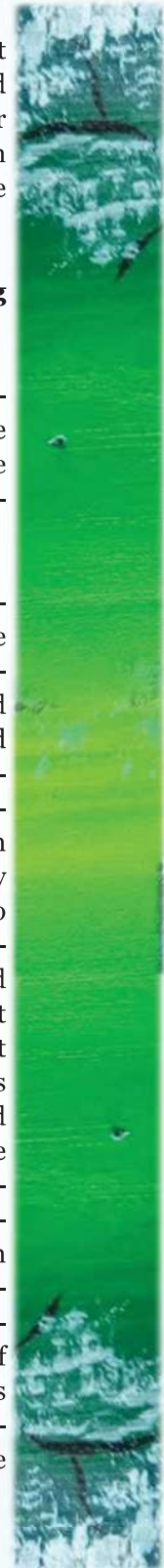
This is also considered to be one of the best sources of income for the rice cultivars and tribal farmers, who have less capacity for farming investment. Mushroom cultivation can be referred as the shortcut to double the farmers income as it gives high profit.

(G) Component of organic farming and sustainable agriculture

Mushroom cultivation is an eco-friendly organic strategy, which supports sustainable agriculture. After the mushroom life cycle completed, the substrate can be used as organic manure in the farming land.

No or minimum information about the mushroom cultivation strategy is considered to be a main barrier to the farmers. Different Government oriented projects, KVK, Central and state skill based project on Agriculture and NGO's are the main skill sourced organizations and component which targeted to provide skills on this technique. Centurion University is one of the pioneer University which provide such skill-based techniques to the farmers as well as farming literacy programme. A large mushroom unit maintained year after year with the production of different edible mushrooms. Funding from different national and international collaborators makes the way easy under this skilled based programme. The bi-centric motto of the mushroom unit is to focus on edible mushroom production and farmers training programme. Centurion University self domain skilled programme and as per farmer's interest, in different time farmers training programme is organized under the umbrella of mushroom unit. Therefore, George S. Patton's quote is rightly to be said to our end note - "Accept the challenges so that you can feel the exhilaration of victory"

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Before Corona, Sometimes In China



Bigyan Mihir Rout

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Past, present and future, not only the part of tense but also the parameter of support, encouragement and advice to the human society. So, from each second of life, we should learn some things and it will definitely fall in requirement in near future.

Coronaviruses (CoV), which now stands as a headaching problem not only in China but also at the compartment of WHO. It belongs to a large family of viruses that cause illness ranging from common cold to more severe diseases. These viruses are normally transmitted between animals and people. Common signs of infection include respiratory symptoms, fever, cough, shortness of breath and breathing difficulties. This virus was first detected in Wuhan province of China and it is of Bat origin.

History is always written so that the future can be learned by learning it. It is not the first time that due to the mistake of Chinese people or government such a dangerous viruses has come to earth surface before it, Chinese government has made many serious mistakes. Today we are representing one terrible and fatal mistake in front of you.

It was 1958, when Mao Zedong of China started a campaign in China. In this campaign, it was ordered to kill Mosquito-fly, rat, and sparrow. He said that sparrow eats all the grains from the fields so it is neces-

sary to kill it too.

The alleged patriotic revolutionaries in China at that time ran this campaign like a movement among the masses. People kept blowing sparrows by playing utensils, drums, and tried their best not to give food and no place to sit. Even the condition reached such a level that the person who killed the sparrow maximum, were given medals and prizes at school, college events.

Finally the people of China were happy that the sparrows, who eats the grain has got rid of them and now the grains will be safe. But by the next two years by 1960 people had realized that they had made a big mistake. Actually they came to know that the sparrow did not eat grains but ate insects that served to spoil grain yields. The result of the sparrow death was that instead of increasing the yield of paddy, it began to decrease rapidly.

Locusts and other insects began to grow rapidly and their population became difficult to control. Crops were spoiled and 25 million people died in this famine.

So, it is request to all human beings that before taking any step, first we should analyse the incident as well as problems deeply going one step front and one step back. Rather it may bring bad impacts not only for other but also for ourselves.



Don't hesitate, accept it



D. Shuvam

Student, Fourth year B.Sc. Agriculture

There is a saying In English that – If Agriculture goes wrong, then nothing have a chance to go right in the country. Indeed it is true enough. To the farmers of India, from pre historian age to modern civilization, dynasties after dynasties and even in democratic state. Yes, the farmers are harvesting and cultivating to produce golden crops. They are the real son of soil. They are the maker of Green revolution. If we eat today, it's only for farmers. Agriculture is the sole parameter of Indian Economy. It is said that Agriculture is the backbone of our Country. It is the Culture, it is the main stream of Society. Really if there is no agriculture, there is no lives.

Now a days Parents and Students hesitate to admit their students in Agriculture science. The first reason from my point view that most of the people of our Society think that there is no scope in Agriculture. Because they never realise the Scope of Agriculture. It is a broad platform where one can do any research. But most of the people are not aware of it. Rather they hesitate it. When a child passed out intermediate, every parents wants their children to be a doctor or en-

gineer. But very rare parents send to their children for Agricultural Science. It's a really a matter of regret that till now most of us don't know the importance of Agriculture.

I want to share one of my experience this year. I am pursuing final year B.Sc. agriculture now. In One Farmers training Programme when i went to village to deliver training to the farmers, I realise what is Life? What is Real Farming? When i asked one Farmer – Are you getting benefits from the schemes of Government. Immediately he replied, we are cultivating from years. If we work today, our family will eat. So we don't wait for the benefits. We know only Farming. It is our Supreme Power. Really this is the blind truth.

If we are looking towards the situation of now, the youths are not engaging themselves in the field of Agriculture. Besides they are going to other country for work and Money. But they don't try to self-reliant. If they want means they don't have to depend on others. So don't hesitate Agriculture , Accept it , welcome it . Go with Agriculture. Farming is the noble Job. ***Jay jawan, jay kishan .***

The Underestimated Gender



Rishikesh Sahoo

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Women, once adored as the mother-the Shakti, the manifestation of the creation, existence and destruction, the symbol of strength, the angel of mankind has come to be looked upon as the unblest creature of God.

We have been brought up in a society where we are told stories of kings, emperors, warriors, rulers and leaders. These were men who have ruled for years creating a patriarchal society. Society looks upon men as superior, realistic, confident and provides an abundance of opportunities in many aspects. As a by-product women haven't been able to avail of equal opportunities, have been subjected to injustice and violence since time immemorial. The cruelty of man upon woman cannot be overlooked. In the olden times, the practice of Sati was prevalent for quite a long span of time where a woman's right to life was snatched away as soon as her husband died or she was treated as a bad luck. Not only this, but the system of dowry was also practised and is still rampant in some sections of society under different garbs. In spite of progress and development there still remains a dark side of crimes against women like harassment, rape, sexual assault, acid attacks etc. There has been a continuous increase in crime rates in spite of various legislation being created and enacted. Due to factors like poverty, lack of employment, etc. some people see no other option but to sell their children in return for money. These girls might be tortured, beaten up, raped and blackmailed. When we talk of development, it is the entire society that needs change and not just a section. The birth of a girl child was considered unfortunate and female foeticide has been rampant. When girls were allowed to be born, they were considered a financial burden as they had to be married off. Many of them were ill-treated and deprived of education. Women have been beaten up, demoralised and threat-

ened. In order to satisfy their sexual desires some men rape women and even girls who are minors i.e. below the age of eighteen. Those who belong to poorer and weaker sections of society are more vulnerable to gender-based violence and victimised without being able to seek recourse. It is time to wake up and help those weak, powerless women who do not have access to resources and help. The initiative to bring about change lies within us, to give a woman an identity and independent status in the society. Today, in the current scenario, women are the ones who need to be placed on an equal footing with men as she is more than capable enough to handle every situation that a man can. There are many women in navy, politics and the police force where she is marching ahead with men. Various educational programmes and seminars are being conducted to spread awareness about the crimes against women and the importance of gender equality. Numerous laws have been enacted to provide equal protection to all. One out of three women in the world have been sexually harassed in their lifetime. Many women are unaware of their rights and if aware, are often denied of them and this is how injustice is rooted in this modernized world. When we talk of modernization, growth, development we need to remember that a society needs balance and equality for its all-round development where the values of brotherhood and unity are upheld. Women need to be educated, empowered, supported, motivated to perform and have access to equal opportunities.

**|| Yatra naryastu pujoyante ramante
tatra devata ||**

**|| Yatra itastu na pujoyante sarvastat-
traphalah kriya ||**



The Rice Porridge



Somnath Ghosh
Student, CUTM

Deep within a village
Was the time of twilight.
A man not of very old age
Was in search of a place.

Where he could easily hide
For he was in a chase
As he stole some rice
To make his rice porridge.

Again he ran, in a lane
Was his wish to have in dine,
His favourite rice porridge
Miles from home, he ran and came.

He was lost in that village
Not a person for him, to help.
By that time it was dark,
And the dogs began to bark.

In that village there wasn't a light
So he waited, to end that night.
And the cold winds, began to blow
And his wish was no more.

To have his favourite rice porridge
And the rice that he stole
For that day was so worst
But this sacrifice won't get lost.

And the night had been passed
Still the paths were so gloomy
Again he waited for the sun
And then he began to run.

Oh! Poor man don't you worry
You will see, a day will come
When you will get in your dine
Your favourite rice porridge.

Leading Centurion from its Peak



D. Nayan Kumar Meher

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I've read that innovation and dynamic management is suitable management to implement in educational institutions. But most universities in developing countries use either conventional factory management that puts discipline as a higher priority than creativity and innovation, or profit management that always measures performance as how many hours can you teach at a lower cost and higher profit.

Higher education institutions are knowledge organizations. The following should be kept in mind in their management:

- * Empowering, people-centric practices
- * Clear policy on talent attraction and retention
- * Least rules so that they do not come in the way of innovation, autonomy, excellence
- * Trusting practices, and not suspecting.
- * At the same time, employees have to be responsible for due discharge of their duties and realization of goals of the organization
- * Management by exception is the best rule to manage them--the leader intervenes only when change is warranted or a conflict occurs.
- * Participatory decision making.
- * Rules should be conducive towards building a learning organization.
- * Careful selection of the leader/dean

From my experience, in general, I can say that the management of CUTM must be based fundamentally on these pillars:

- * Continuous improvement of human resources
- * Involvement with stakeholders, internal and external
- * Involvement of students in the teaching-learning process

To do this we must respect the following principles:

- a. University Autonomy
- b. Encouraging creativity and innovation
- c. Proximity Policy and how to implement it?
- d. Through a strategic management system
- e. That includes a quality management system and a social responsibility system

Again all social institutions have to be prepared for the changes and challenges of a highly competitive and ever increasing global environment that is in a constant state of flux. Institutions of higher education are not exempt from this overwhelming trend. Addressing these changes and challenges has meant finding ways to align organizational capacities with environmental demands and opportunities, as well as a big responsibility for governance and management at the institutional level. While it is recognized that higher education institutions are historically collegial organizations, it is also recognized that the collegial system needs to support accountability and institutional responsibility, or even be more managerial in order to face the challenges of the future. Strategic management and strategic planning are important concepts that CUTM should pursue in the future.

The higher education enterprise must shed its defense of the status quo and develop a far more adaptive, proactive and flexible approach to strategic management. It must also recognize that the growing complexity of the institution necessitates that the leadership delegate more responsibilities and empower more individuals. This in turn means leadership must recognize the need to employ the best and brightest minds possible and to accept the realization that no one individual can be the found that possess a strategic perspective. We need to contribute to the collective process of distributed leadership. We must take personal responsibility for our policies, not as autonomous units, but as integrated organization with a clear identity and strong leadership buttressed by strategic planning.

I have taken some of its idea from books like "Good to great", "the five dysfunctions of a team", "laws of leadership" etc. Hope you like my idea.

Role of Agriculture in Indian Economy



Mandira Pradhan

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Agriculture is the most important sector of Indian Economy. Indian agriculture sector accounts for 18 per cent of India's gross domestic product (GDP) and provides employment to 50% of the countries workforce. India is the world's largest producer of pulses, rice, wheat, spices and spice products. India has many areas to choose for business such as dairy, meat, poultry, fisheries and food grains etc. India has emerged as the second largest producer of fruits and vegetables in the world. According to the data provided by Department of Economics and Statics (DES) the production of food grains for the year 2013-2014 is 264 million tons which is increased when compared to (2012-2013) 257million tons. This is a good symp-

tom for the Indian economy from the agriculture sector. India remains among main three as far as production of different agricultural things like paddy, wheat, pulses, groundnut, rapeseeds, natural products, vegetables, sugarcane, tea, jute, cotton, tobacco leaves and so on. On the other hand, on advertising front, Indian agribusiness is as yet confronting the issues, for example, low level of business sector reconciliation and integration, availability of dependable and convenient information needed by farmers on different issues in farming. Agriculture in Indian Economy Indian is an agriculture based country, where more than 50% of population is depend on agriculture. This structures the main source of income. The commitment of





agribusiness in the national income in India is all the more, subsequently, it is said that agriculture in India is a backbone for Indian Economy. The contribution of agriculture in the initial two decades towards the total national output is between 48% and 60%. In the year 2001-2002, this contribution declined to just around 26%. The aggregate Share of Agriculture and Allied Sectors, Including agribusiness, domesticated animals, and ranger service and fishery sub segments as far as rate of GDP is 13.9 percent during 2013-14 at 2004-05 prices. Agricultural exports constitute a fifth of the total exports of the country. In perspective of the overwhelming position of the Agricultural Sector, gathering and support of Agricultural Statistics expect incredible significance.

According to the fourth Advance Estimates of Production of food grains for 2013-14, aggregate food grain production is assessed to be 264.77 million tons (MT). The 6% of agricultural production is converted in to processed food, which is focused to achieve 20% in com-

ing future. The business is work escalated and contributes around 50% for industrial production. Multi-National Food Companies have assumed a part of making business sector draw and rivalry. Selection of inventive and experimental bundling strategies by food industry has empowered the assembling of sheltered and quality sustenance. CONCLUSION

Most of the Indians are directly or indirectly depending on the agriculture. Some are directly attached with the farming and some other people are involved in doing business with these goods. India has the capacity to produce the food grains which can make vast difference in Indian Economy. To achieve targeted mark by the government it needs to provide support in case of land, bank loans and other machineries to the small farmers along with the big farmers with this we can expect some improvement in Indian economy.



Economic Benefit of Sustainable Framing



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Word Sustainable has become very popular these days. Sustainable agriculture promises to help feed a growing population and mitigate the effect of climate change. It not only concentrates on economic aspect of farming but also on the use of non-renewable factors in the process thoughtfully and effectively. The focus on sustainable agriculture isn't just driven by environment concerns, but also by the growing, gnawing need to meet the unrelenting demand for increased yields. Some techniques used by farmers include minimizing or eliminating tilling, encouraging soil health with more frequent crop rotation. Sustainable agriculture also encompasses what happens to food after its harvested. This is the connection between sustainable farming and the growth, production of food, plants and animal products using farming technique prove to be beneficial for public health and promote economic profitability. It draws and learns from organic farming. Sustainable farming helps the farm-

ers innovate and employ recycling method. Recycling would be the crop waste which can transformed into fertilizers helps the soil. Help the soil maintain its nutrients and soil rich. Collection of rainwater can be utilized for irrigation. Challenges like conversion of some cropland for biofuels rather than food and the effect on worldwide land caused by erosion, urbanization and climate change.

Factor require farmer to increase crop production, both by increasing the amount of agriculture land and by enhancing yields on existing lands. Otherwise food security will suffer. And the sustainable agriculture practices come in. Sustainable agriculture is an ever changing collection of natural and human inputs. Strategies like increasing soil health by boosting volume of microbes in ground using cover crops helps suppress weeds, control pests and diseases and build productive soil.



Water Use Efficiency in Maize Production and Strategies to Improve It



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ABSTRACT

We know that Maize ranks 3rd in terms of production among the cereals. So for the proper growth of the crop in a particular area of land it should have availability of all the input factors at the particular place at the right time. Like for other cereal crops, maize also needs water at the right growth stages for good productivity and yield. This paper emphasizes on the water use efficiency by the maize plant and also focuses on the challenges that the crop faces due to water shortage and the strategies that can be developed and adopted to properly function the water use efficiency in maize crop under varying environmental conditions.

INTRODUCTION

The rapidly developing world always increases the demand of each and every crop day by day. Maize being the staple food of Mexico and other Latin countries is now also becoming an important food and feed requirement in India too. India has also been diversifying its food quality and food varieties in the recent years due to the increasing demand of varying tastes among the people of the country. Maize requires sufficient irrigation despite of rainfall as its water requirement is significantly more than other crops. The amount of irrigation water supplied to the maize crop field may or may not be completely utilized by the crop. So the water use efficiency should be known to each and every farmer or producer for supplying the irrigation to the crop at the right growth stages. Controlling the

water use efficiency in maize crop reduces the wastage of water and thereby creates a good impact on the irrigation water level in the soil. The growth stages of the maize crop determines the amount of water that is properly utilized by the plant for its growth and development to the total amount of water that is being supplied to the crop through rainfall or irrigations. So to keep a check on the water use efficiency by the crop there are certain methods and techniques that can be adopted and implemented for the good yield of the most required crop of the country.

WATER USE EFFICIENCY BY MAIZE CROP

Maize is much susceptible to water stress than any other cereal crop because of its unusual floral structuring. Maize is mostly grown in humid tropics with warm temperature prevailing at the cultivating area. It is a C₄ plant so it requires more CO₂, sunlight, water than C₃ crops. But maize crop makes the most efficient use of water according to the various researches done at different areas or countries.

Water should not be deficient for the maize crop during its growth stages because it may lead to an increase in moisture stress in the roots as well as on the grains. Particularly at the flowering stage or at the early vegetative stages, the crop needs sufficient amount of water for better physiological and morphological growth. If there occurs water stress during the critical growth stages of the crop than the plant may suffer with decreased



grains , kernels and reduced stem growth and reduced root development. The water requirement for the maize crop is much important before and after the flowering stage.

Improvement of water use efficiency in Maize

To increase the WUE in maize, we must follow up and practice integrated approaches of agronomic practices and genetical advancements to increase the yield with better utilization of available water by providing timely irrigation.

1. Deficit irrigation at growth stages

According to the traditional method of cultivation of maize we keep on irrigating the crop at each and every stages with a check of the soil moisture level. After reviewing through certain articles it can be mentioned here that one irrigation can be skipped during the early growth stages of the maize crop. This skipping of one irrigation or delaying in between two successive irrigations can be referred to as deficit irrigation. Researches on this has concluded that the yield of the maize crop may get reduced but the profit margin may not decrease. But the water use efficiency of the crop increases about 2 – 3% as the scarcity of the water forces the crop to utilize the root pressure to absorb water from the soil and thus there occurs no wastage of irrigation water.

2. Planting date

The planting date or sowing date is also an important criteria which can be helpful in increasing the WUE of the crop. So if the planting date is integrated with short duration varieties then the crop will not face any kind of water stress or environmental stress conditions during its later susceptible growth stages. It should be observed that the cultivar and planting date should be favoring to the varying climatic condi-

tions.

3. Planting geometry

Many planting patterns can be followed for the maize crop cultivation, but the best choice is sowing at a row distance of 70 – 90 cm is recommended by various research papers so that the crop makes sufficient use of the available soil moisture. Inter cropping in maize crop can be the most beneficial system of cropping pattern as the plant population , yield will be more as divergent crops can be grown simultaneously. Intercropping with companion crops helps in usage of water from different soil layers and this helps in enhancing the overall water use efficiency making adequate supply of water. Skip row sowing is also recommended to be the best cropping pattern to be followed.

Conclusion

Consequently the water scarcity in the world is getting increased along with the demand of food requirement and crop production. Maize crop has a diverse demand because of its maximum food alternatives. So for a good and sustainable production, integrated approaches should be adopted and implemented for producing a better yield of maize crop in the overall year thereby maintaining the water use efficiency of the maize crop.

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Agri Marketing and Post-Harvest Management



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Agriculture marketing means buying and selling of agricultural products. Agriculture marketing covers all the activities such as planning, organizing and handling of the products starting from the farm till it reaches to the consumers.

Post-harvest management plays an important role in marketing good quality agricultural products. "Post-harvest management is a system of handling, storing and transporting agricultural commodities after harvest." Post-harvest activities increases the self-life of the products and helps in managing the resources for future use. Post-harvest management activities includes preserving, drying, fermenting, maintaining the moisture level and ensuring any kind of contamination free condition. Hence, there are greater chances of loss in post-harvest management, especially in case of vegetables and fruits. About 10%-15% of fresh fruits and vegetables shrivel and decay during transportation which results in lower market value of the products.

Today there are new and innovative technologies such as, wireless sensing, remote monitoring, cold storages, different

chemical preservation methods that has made it easier in handling the agriculture products. To maintain the quality of the product it is important to have less duration between all the activities starting from harvesting, storage and marketing. Post-harvest management and Agriculture marketing work hand-in-hand to provide better quality products to the consumers.

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Fertilizer Broadcaster



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Fertilizers are substances containing chemical elements that improve the growth of the plants. Fertilizer gives nutrition to the crops. When added to the soil, plants can develop tolerance against pests like weeds, insects, and diseases. Fertilizers contain nitrogen which acts as a growth booster which can be characterized by the green color of plants. Phosphorus substance in fertilizers aids in the faster formation of seeds and root development. So we should apply fertilizer into the field. We can spread the fertilizer into the field by manually and by machine also. In India most of the farmers are applied fertilizer into the field by manually, which takes too much time to spread. For proper spreading and less time we can use Fertilizer Broadcaster. Which is more effective than manually spread.

What is Fertilizer Broadcaster and why we will use it?

=> Fertilizer Broadcaster is an equipment

which is used to spread fertilizer into the field with good efficiency.

□ We should use the fertilizer broadcaster for proper spreading of the fertilizer into the field. Because manually spreading of the fertilizer is more laborious, it takes so much time and is health hazardous. In manually spreading we can't spread the fertilizer properly. So in one place the amount of spreading fertilizer may be more and in other places the amount of spreading fertilizer may be less. To make the fertilizer application more uniform and efficient, fertilizer broadcaster is used. Fertilizer Broadcaster is more comfortable to use, less time consuming and does not cause any health hazard to the farmer.

Advantages

1) By using of the fertilizer broadcaster we can spread the fertilizer uniformly in the field as per requirement, so there is no chance to over spread of the



Version	FURBO 500
Hopper Capacity (L)	345
Weight (KG)	96
Transport Width (cm)	1,2
Total spreading range (m)	12
Hitching point	Three point hitch la cat
Lever & opening and closing	Double lever command, Independent opening and closing right/left
Top outer diameter	1200 mm
Top inner diameter	1140 mm
Lower outer diameter	200 mm
Lower inner diameter	190 mm
Opening	2
Hitch pin hole diameter	20 mm
Hole Distance (Inner)	57 mm
Hole Distance (Outer)	68.5 mm
Cone height	900mm
Total Height	1165mm
Fan Diameter	425 mm
Number of blade in fan	4
Length of the Fan Blade	185 mm



fertilizer and no chance to burning or damage the root of the plant.

2) Using of manually broadcasting of fertilizer may cause skin disease of the farmer. But using of fertilizer broadcaster there is no direct contact of skin. So there is no effect occur for farmer skin.

3) By using fertilizer spreader we can spread the fertilizer in less time. So it saves lot of time.

4) Now a days fertilizer cost is increasing day by day. By using fertilizer spreader to more evenly apply fertilizer, we can save the money by not over applying

Field Test:-

a) In field test time, fertilizer broadcaster spread the fertilizer 40 m.

b) In that time the rpm is 2000.

c) Long time is 4 min 23 sec

d) Amount of fertilizer

Spread is 60 kg

e) No of opening is 2



Mushroom: As an Extra Additive



Sonali Panda

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Centurion University of Technology and Management

This ARTICLE is prepared for developing new business of “Mushroom chips”. Mushroom, the name is not new to us. At first, Mushroom were grown widely and lived on rotten tree stem in a damp forest. But following the high demand of the mushroom, it is now being planted by farmers and used for medicines as well and many kinds of food. The benefits of mushroom have been discovered by Chinese people hundreds of years ago. But recently, a researcher from Minnesota Medical School, America, found that mushroom contained in every day’s meal could protect the health of blood vessels. Mushrooms are brimming with protein; vitamin B and minerals .They are low calories and may have antibacterial substances to help the body. Mushrooms are the good source of nutrition and this is our main ingredients.

new initiative to the market to increase the market demand as well as health of the people. This is an available product but of the new version of taste and quality create a new change of the customer taste. For the technological changes and advances it’s easier to give any information and promotional activities to know the product popularity to the people.

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As we know that the self-life of mushroom is hardly less so it may become a



Introduction To Bhutan



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Bhutan is a small landlocked country that lies in the Eastern Himalayas, bordered to the north by Tibet and to the south, east, and west by India. Bhu-utthan is the Sanskrit word meaning Highlands, and it is very remote, mountainous, and has a huge number of ancient Buddhist monasteries. With a population of about 750,000.

Bhutan has 20 districts which are called as Dzongkhag. Every district of Bhutan has a dzong – an enormous fortress – which houses the official monk body, administrative offices and several temples. Dzongs are also one of the main tourist attractions in Bhutan apart from monasteries and temples. The main cities that the tourists visit lie in the districts of Thimphu, Chukha (Phuentsholing), Paro, Punakha, Wangdue Phodrang (Phobjikha) and Bumthang.

Buddhism is Bhutan's official religion; about 70% of the country is Buddhist. Buddhism permeates every aspect of life and the philosophy of Bhutan, and it seems to form the basis of the way the people and the government operate. More than 80% of the population lives in small villages sparsely scattered over the rugged mountainous terrain.

The Royal Government is very cautious when it comes to growth and development of the tourist industry, believing that

“tourism must be environmentally and ecologically friendly, socially and culturally acceptable, and economically viable.” The government makes serious attempts to limit the effect of outside influences.

Bhutan? Isn't that the place they call the Land of Thunder Dragon?

Bhutan? Isn't it considered the last Shangri La?

Bhutan? Isn't it the happiest nation in the world?

We got to hear so many such questions from the foreigners before they visit our country.

Bhutan is like no other place in the world! We are awed by its spectacular natural beauty, its living spiritual culture, its pristine environment and most importantly by its wise Kings who measure the country's progress and development not by 'Gross Domestic Product' (GDP) but by its 'Gross National Happiness' (GNH).

In Bhutan, the people are welcoming, and stunning monasteries are perched on top of mountains.

Bhutan is a fairytale mystical kingdom that has struck the right balance between tradition and modernization. It is a Himalayan land where Buddhism thrives and happiness grows.

Role of sulphur in pulse and oil seed production



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Sulphur is an essential element for plant growth because it is present in major metabolic compounds such as amino acids (methionine and cysteine), glutathione, proteins, and sulpho lipids in oil seeds and pulses. Pulses are particularly sensitive to S deficiency, which imparts the low quality of seeds and yield. In recent years S deficiency has become an increasing problem for agriculture resulting in decreased crop quality parameters and yields (McGrath et al., 1996). Sulphur is also needed for the synthesis and metabolism such as coenzyme A, Biotin, thiamine and vitamin B1. It also involves in the formation of chlorophyll, glucosides and the activation of enzymes.

Existence of Sulphur in soil

S exists in inorganic and organic forms. While sulfate (SO_4), which is a direct S source for plants, contributes up to 5% of total soil S, generally more than 95% of soil S are organically bound. Organic S is divided into sulphur ester and carbon-bonded S. Although not directly plant-available, organically bound S may potentially contribute to the S supply of plants, especially in deficiency situations. Sulfur turnover involves both biochemical and biological Bio-

chemical mineralization, which is the release of (SO_4) from the ester sulfate pool through enzymatic hydrolysis, is controlled by S supply, while the biological mineralization is driven by the microbial need for organic C to provide energy. Sebastian Schneider et.al., 2019.

Important factors affecting the transformation of sulphur are: 1. Type and Amount of Clay 2. Oxides and Hydrous Oxides of Fe and Al 3. pH 4. Organic Matter 5. Texture 6. Salt Content 7. Alternate Wetting and Drying 8. Cations and Anions 9. Presence or Absence of Vegetation 10. Interactions of Sulphur with Other Nutrients.

Role

In pulse the application of 30 to 50 kg ha⁻¹ of sulphur has shown significantly higher plant height, no of leaves, number of branches, and the number of nodules and it has contributed a significant effect on nutrient uptake of the pulse crop.

In India the productivity of oilseeds is still low due to low consumption of S fertilizer and its wide spread deficiency. The recommended rates of S are in the range of 20-50 Kg S/ha, but based on



the literature survey the economical doses of S would be 20-30 kg/ha for most of oilseeds and 30-50 kg/ha for mustard. If the deficiency is still occurring in the crop higher doses of S is recommended for one or two application (Patel et.al., 1992)

Among various sulphur fertilizers, gypsum, elemental sulphur and ammonium sulphur are well known sulphur fertilizers.

Aulakh and Pasricha (1988) reported that the S uptake ranged from 5-20 kg/tonne of oil seeds and ranked the S requirement of oilseeds crucifers>sesame=sunflower>legumes>linseed. The beneficial effect of S on the yield and quality of oilseeds is due to the increase in the amount of S absorbed by the plants and its subsequent utilization.

The most commonly used S fertilizers are ammonium sulphate (24 % S) single superphosphate (12 % S), mineral Gypsum (13 % S), pyrite (22-30 % S), elemental S (85-100% S).



Conclusion

Sulphur is one of the important nutrient next to NPK. And it plays a major role in all the crops but its effect is mostly high in oilseeds and pulse crops as it plays a major role in amino acids synthesis, proper management of soil with enough organic inputs can result in improving available sulphate, sulphur in the soil and also timely application of sulphur fertilizers results in higher yields and quality grain production of pulses and oilseeds.

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Skill India and Challenges before It



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Skills have become an integral part of boosting capabilities and enhancing employment opportunities which are playing vital role in building the economy and improving the society. The importance of advanced skill sets and quality resources has increased tremendously in the last decade. Unfortunately, India has just little over 3 percent of its workforce which is formally trained, whereas China has over 80 percent.

Over the last couple of years, skilling has become one of the primary focus points for the central and state governments. This is largely on account of the skill crunch that employers face due to the dysfunctional education system that is churning out people who aren't job-ready. Dearth of trainers, absence of a well-suited curriculum and lack of proper infrastructure makes these students unemployable.

In order to bridge the gap, Govt. has introduced programs to skill the youth and prepare them for jobs by introducing different skill programs like PMKVY and DDYGGKY under NSDC. Also, Government has reformed the apprenticeship system to make

it conducive for employers to create talent as per their needs. However, the adoption is slow by the industry against what was anticipated. India has just about 4 lakhs apprentices with little over forty thousand employers.

Skilling needs to be an integral part of the education system. This has been best demonstrated by European countries where Government, employers, academia and community have equal participation in making a healthy skilling ecosystem. They focus on skilling right at the early learning days of a child, thus building multi skills which sets the foundation for quality education.

Also, apprenticeships are an integral part of the skilling process, which is, in turn, increasing the employability quotient in the students and making them more relevant to the demands of the employer. Not only large, but even small, micro and medium employers actively participate in apprenticeships. More so, connectivity to higher education makes it the best career route for the youth. Credit system entitles them to get lateral entry into degree programs

like UGC approved Bvoc with different courses. Tight governance ensures necessary checks and balances are in place to achieve the desired output.

Today jobs are becoming more and more specialized which need multidimensional skills. This has led to employers paying more importance to capabilities



instead of qualification The skill gap which is ever widening is also becoming complex in nature with every passing day. Technology is transforming the jobs and the skills required to handle these jobs are also going through the evolution. Creativity, adaptability and decision-making abilities are becoming more important for skills.

Today's jobs demand employees to have domain knowledge, be technologically sound and have strong management skills. Thus skilling is leading to the concept of upskilling and reskilling. While upskilling is mostly focused towards fresh candidates in order to bridge the gap between education and employment; reskilling is for the people in the job who need to upgrade their skills to remain employable in the market. Over the last one year, this has become a common practice by employers to keep their existing employee abreast with newer technologies and to create talent in the house for future job roles.

Suggestions for improving skills:

1. First, exposure to skilling needs to start early at secondary education and should focus on building multi skills.
2. Second, we need to connect vocational education to higher education and bring in more acceptability for this model from the community
3. Third, Govt. should look for a public-private partnership (PPP) to ensure scale and quality. This could even mean decen-

tralization of authority and accountability.

4. Fourth, a blended mode of learning should be the way forward. To cater to the complexities of jobs no single form of learning will be sufficient. There has to be a blend between online, onsite, on the job and on campus for comprehensive development of capabilities.

5. Fifth, consolidation and recognition of all schemes and programs under one regulator as per NSQF is important as this will lead to the formalization of skilling, thus scaling up the numbers; and ease of governance. The ambition of 400 million skilled Indian by 2022 isn't far from reality, but it isn't achievable until we have an equal participation

.Challenges before skill development:

There have been three major challenges to skills development in India: expanding public sector collaboration with industry and the private sector, creating pathways for international mobility and addressing women's low participation in the labour force.

Here's how the National Skill Development Corporation (NSDC) has approached them:

Industry and private sector collaboration Creating avenues for private sector engagement has been a crucial strategic pillar for India. Skill development faces several forms of market failures, including information asymmetries – a skilled person knows his or her skills, but a potential employer does not; if employers had all

the information, their willingness to pay for a skilled person would rise. Recognition of Prior Learning (RPL) is an example of an intervention to address

PMKVY
प्रधानमंत्री कौशल विकास योजना



information asymmetry.

Another market failure in skill development is externalities. For example, when a firm spends resources on developing the skills of an employee, he or she can quit and join another firm, thus benefitting the latter firm and not the firm that incurred the training cost.

In India, there are a variety of skill development models – government-funded programmes that fully or partially subsidize training/apprenticeships, market-led trainings (where trainees pay for the course), market-led apprenticeships and industry-led/on-the-job training. The not-for-profit National Skill Development Corporation (NSDC) was set up as a public-private partnership (PPP) to stimulate private sector participation in the Indian skill development sector. A core role of the NSDC is, therefore, providing long-term development finance to organizations to build for-profit vocational training initiatives. We also work closely with the Ministry of Skill Development and Entrepreneurship (MSDE) to implement government grant-based vocational training programmes, where infrastructure is set up by private providers and training costs are subsidized by the government.

Collaboration with industry has been fundamental to ensure the relevance and quality of skills training and for building the institutional structures required to achieve the desired outcomes. Sector Skill Councils (SSCs) were incubated by the NSDC for fostering industry connections and developing an industry-relevant course and curriculum. There are currently 37 SSCs operational, with more than 600 corporate representatives in their governing councils.

India's labour force above 30 years of age is 262 million people, according to our



analysis, of which 259 million are currently employed and need to be future-ready. As such, our work has also used industry partnerships to drive reskilling and upskilling initiatives and to develop close collaborations with employers to prepare their workforce for new technologies and the future of work.

There is a vast segment of informal workers in India, many of whom possess skills that have not been formally recognized. RPL interventions are critical in this scenario – holding a formal certification can improve an individual's bargaining power. In a third-party evaluation of the RPL component of the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) conducted by Sambodhi Research and Communications, 75% of RPL-certified individuals said they were more prepared for their current job and 79% said that the programme has made them more confident about getting a better job.

The same analysis suggests the monthly incomes of RPL-certified individuals were on average 19% higher than those who had not been RPL-certified. An average increase of 25% in income after certification was reported.

Analysis of an as yet unpublished household survey conducted by the Centre of Monitoring Indian Economy (CMIE) suggests there are more than 390 million individuals who have acquired skills informally – through self-learning, on-the-job learning, inherited skills or other



sources. Of these, a majority (384 million) are working, showing the scope for RPL and apprenticeship-related interventions. Both of these interventions typically involve collaboration with industry and the private sector, even when they are part of publicly funded programmes or schemes. Encouraging international mobility

India is committed to becoming the “skill capital” of the world and structured efforts such as the India International Skill Centre (IISC) programme are evidence of this. A new, market-driven IISC network has been proposed to counsel and guide potential emigrants with a focus on skills tests, upskilling, language and pre-departure orientation. Furthermore, the governments of India and Japan are cooperating to implement Japan’s Technical Intern Training Programme (TITP), an on-the-job training scheme providing three to five years of internship opportunities for foreign nationals in Japan, with NSDC as the implementing organization.

Technical collaborations have been undertaken with countries such as the UK, Australia and the UAE for benchmarking and mutual recognition of standards. Government-to-government and B2B partnerships are also being developed for new markets such as those in Western Europe, Canada, Australia and East Asia to increase the mobility of blue and white-collar Indian workers.

Women’s participation in the labour force

A third focus area for us is addressing the challenge of low female participation in the labour force. Our analysis of labour force survey data suggests that of the country’s labour force of 395.2 million, only 91.6 million are women.

Skilling initiatives – complemented by a wider push towards empowerment through gender sensitization, creation of economic opportunities and economic and

social support – can be used to raise this number. Providing residential facilities for women trainees, embedding mentoring and coaching in skills programmes and providing social support through mechanisms such as local workshops have all been explored.

Preparing women for forms of employment that are more attractive to them, such as the gig economy and its more flexible work models, is especially relevant, given that 229.2 million women (out of the 301.5 million who are not in the labour force) report their status as “attending domestic duties”, in our analysis.

Encouragingly, our progress so far in terms of creating access to skill development for women has been positive. More than 50% of the candidates trained under PMKVY are women. A significant number of women have also been trained in unconventional roles, such as in the electronics and hardware sectors. On our paid courses, women account for 40% of trained candidates. Here too women are increasingly enrolling for unconventional job roles, such as field technician, organic grower and automation specialist. Several training providers in our system focus exclusively on women and are promoting skill training in areas including digital and financial literacy, entrepreneurship, website design, 2D and 3D design, hardware repair and farm management. Partnerships with industry to support women-centric projects in non-traditional trades have also been explored.

Finally, as a country, we need to take few more initiatives to make India stand out as the skill capital of the world by encouraging different age mass group at larger number.



Integrated Farming System



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The growth rate of agriculture in the recent past is very slow in spite of the rapid economic growth in India. It is projected that our country's population will touch 1370 million by 2030 and to 1600 million by 2050, to meet the demand we have to produce more than 400mt of food grains during the respective periods. The operational farm holding is declining gradually due to ever increasing population and declining per capita availability of land in the country. Practically there is no scope for horizontal expansion of land for agriculture. Only vertical expansion can be possible by integrating farming components requiring lesser space and time and ensuring reasonable returns to farm families. Now to meet and ensure the demands of ever increasing population we have to adopt modern farming system leaving behind the old ones in modern language the new concept if farming system is turned as integrated farming system is termed as Integrated Farming System.

Farming system

'Farming' is the process of harnessing solar energy in the form of economic plant and animal products. 'System' a set of inter related practices and process organised into functional entity.

What is integrated farming system?

Integrated farming system (IFS) is a whole farm management system which aims to deliver more sustainable agriculture. It is a dynamic approach which can be applied to any farming system around the world. It involves attention to detail and continuous improvement in all area

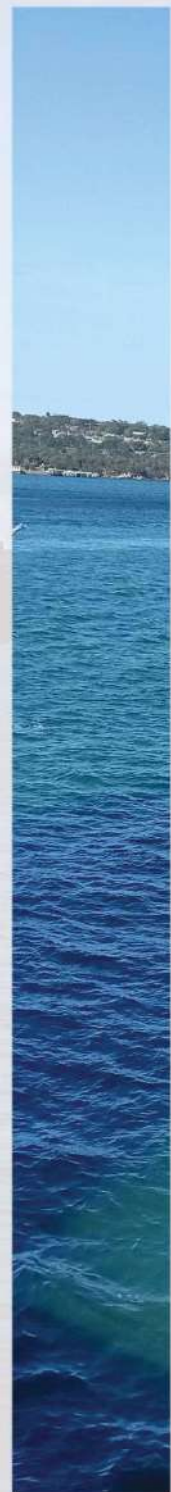
of farming through informed management process. IFS combines the best of modern tool and technologies with traditional practices according to the given site and situation.

The Rationale behind IFS

To minimise waste from the various sub systems and use more of on farm inputs. Wastes or by-products from sub systems are used as inputs to other sub systems which can lower the cost of production of the various enterprises in IFS. The IFS provides an opportunity to increase the economic yield per unit area in per unit time by adoption of diversification of crops and integration of allied activities. It not only offers enough scope to nutrient recycling within the system to economise and sustain the system but also minimises the dependence on off farm and fossil fuel based chemical inputs in farming.


Goals of IFS

- To earn a steady income with regular cash flow and rejuvenation of the system's productivity.
- To achieve agro-ecological balance through application of on-farm inputs (and less reliance on chemicals), maintenance of pests and diseases population dynamics below the economic threshold level, management of cropping system and creation of synergy among enterprises.
- To provide environmentally sustainable and economically viable technology by utilizing local resources.
- To conserve the natural resource base





Enterprises linked in different agro-ecosystem

Dry land	Garden land	Wet land
• Dairy 	• Dairy 	• Dairy 
• Poultry 	• Poultry 	• Poultry 
• Goat / Sheep 	• Mushroom 	• Mushroom 
• Agro forestry 	• Apiary 	• Apiary 
• Farm pond 	• Piggery 	• Fishery 
	• Sericulture 	• Duckery 

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Source : Slideshare.net

and move towards attaining production sustainability.

Integration of enterprises in a farming system

IFS is based on the concept that there will be a minimum waste and a major portion of waste can become a valuable input for another activity. IFS combined with live-stock, aquaculture, agriculture and agro industry in a unit synergistic system so that the waste of one process become the input for other process. The concepts associated with IFS are practiced by numerous small farmers throughout the world and more particularly in developing countries. In the integrated farming system, different enterprises are included based on farmer's priorities, strategies and resource allocation decisions. An IFS is a mix of different farm enterprises in which a farm allocates its resources to utilize these efficiently to attain the goal of the farmer.

Advantages of IFS

1. Increased productivity through increased economic yield per unit area per time by virtue of intensification of crop and allied enterprises.

2. Improved profitability achieved mainly by way of reduced costs due to recycling of wastes of one enterprise as energy inputs for other systems.

3. Greater sustainability in production on farm due to integration of diverse enterprises of different economic importance. Recycling of wastes being built in the system, this helps to reduce dependence on external high-energy inputs thus conserving natural and scarce resources.

4. Integration of different production systems provides an opportunity to solve malnutrition problem due to production of variety of food products.

5. The recycling of wastes for production helps to avoid piling of wastes and consequent pollution.

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Creating a School of Excellence

From the desk of two childhood classmates



Satya P Nanda
Anil Kumar Patnaik

Every school has a soul and the soul has its aspirations.

School life comprises of 14 years, starting from Kindergarten to Class XII. When a person reminisces the heydays, he/she remembers those days which are the happiest and carefree days of school life. Be it academics or an athletic feat on the ground, a school trip or an elocution competition- school life consists of moments, more the moments - more is the school life lived. For creating more moments in a student's life, effective practices are required which makes a school reach its excellence. State of the art infrastructure, advanced technologies are far behind.

A school that thrives for excellence always keeps its students as the first priority. Any decision that is taken in a school or any program that is conducted, students must be the focal point. Student's health, safety, academic growth, and activities are the basic responsibilities.

A principal, who is a visionary, having unsurpassed creative brilliance, who loves his/her work, can make any school reach its zenith of excellence. The success of the school, the environment, and the conditions depend on the principal's thoughts. He /She must choose his/her thoughts properly as it is manifested instantly. The principal must lead by example and keep students as a prime concern. He /She must embrace the differences and keep professionalism at its acme.

A principal having such type of attributes inspire all stakeholders. An ordinary teacher performs excellently under such type of a school leader. When a principal of such cadre exists, no ascribed leader burgeons in the school system. The integral part of the school's achievement depends on the principal and how he/she delegates. Keeping the right people in the right place, having a vision for a teacher is an art. The decisiveness of the principal's delegations is the

causing factor for a school's success. When a principal monitors a teacher's performance, the teachers in return monitor the students and engage them. There would be a relentless focus on teaching and learning.

The involvement of parents in school plays an important role in the success of the school. When parents play a pivotal role by keeping in touch with the school, students feel comfortable and learn better.

The type of competitions conducted in a school plays an important role in its success. The competition must belong to the students' generation, it must not be primitive and outdated. The variety in competitions makes the students understand better and as a result, they ask better questions. The ability of a student is recognized by the type of question he/she asks.

Co-curricular and extra-curricular activities engage the students and develop an inclination towards their school. You never know when a star is born and what can be the motivating factor. Professional development of teachers by sending them to different workshops will have a great influence on students because when the teachers are enriched, the students would be. Inviting motivational speakers can have a positive effect on students. Alumni's meet in their alma maters will certainly have an impact on the students as they would be inspired to see their seniors at superlatives.

All-round training excellence programs, youth empowerment seminars, intuition process development programs in schools can make the students great human beings. When negative emotions like fear, anxiety, stress, anger, frustration won't be there, students will stand tall with glory and excel.

Students are the soul of the school, if students excel, a school of excellence will be created.

A World of its Own Identity: History of Bhojpuri Cinema



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Bhojpuri Cinema or Bhojiwood is a valuable part of the Indian film industry and its acceptance has reached such a great height over a period of time, such that many big Bollywood stars have been seen in Bhojpuri movies. And the many Bhojpuri Stars successfully joined the politics also. Many big hits have created history in this line of cinema, with memorable stories and wonderful performances by actors.

The first president of India Dr. Rajendra Prasad, who also belongs from Bihar, He was meet the Bollywood actor Nazir Hussain and asked him to make a movie in Bhojpuri, After that, the first Bhojpuri film was released in 1963, named Ganga Maiyya Tohe Piyari Chadhaibo (Mother Ganges, I will offer you a yellow sari), this movie was produced by Biswanath Prasad Shahabadi under the banner of Nirmal Pictures and directed by Kundan Kumar. Throughout the upcoming decades, there was lot of Bhojpuri films produced. In 1963, Bidesiya (Foreigner) directed by S. N. Tripathi, Ganges (1965) which was directed by Kundan Kumar, at that time this movie was a big hit. In the 1960s to 70s Bhojpuri films were not commonly produced.

In the following decades, the Bhojpuri film again started in their own style. The industry was a rise from the ash again in 2001 with the Silver Jubilee hit Saiyyan Hamar (My Sweetheart), directed by Mohan Prasad, with the hero of the film, Ravi Kishan.

The several hits have resulted in increasing stardom of the Bhojpuri film industry. Also, mainstream Bollywood stars like Amitabh Bachchan and Mithun Chakraborty have worked in Bhojpuri films. Gangotri” was a big film for the Bhojpuri film industry, as it had Bollywood superstar Amitabh Bachchan, Hema Malini, Manoj Tiwari, Nagma, Ravi Kishan and

Bhoomika Chawla. Abhishek Chhadha was directed this film which release in 2007. Which made record collections on the box office. The success of this film was followed by other remarkable hits like Panditji Batai Na Biyah Kab Hoi (Priest, tell me when I will marry), 2005 directed by Mohan Prasad and Sasura Bada Paisa Wala (My father-in-law, the rich guy).

Dulha Ganga Paar Ke (1986), Dehati Babu (2006), Lagi Nahi Chhute Ram (1963) and Ab to Banja Sajjanwa Hamaar (2006) are some other highly acclaimed Bhojpuri movies. These movies did a big business in comparison to Bollywood movies, which was released in Bihar and Uttar Pradesh. Sasura Bada Paisa Wala also marked the acting debut of Manoj Tiwari, a well-known folk-singer. Today, Manoj Tiwari and Ravi Kissan are still the leading actors of the Bhojpuri film industry and Now Manoj Tiwari is trying to explore in the field of politics.

Bhojpuri songs are meant to be the most entertaining, energetic and sarcasm not only in the country but all over the world. Along with the growing popularity of Bhojpuri actors, their songs are also gaining huge fame and liked by the audiences. Actor, Pawan Singh’s Lollypop Lagelu is one of the most famed Bhojpuri songs. The song became a hit soon after its release and the singer attained immense popularity after the song became popular in the regions of Bihar, Jharkhand and Odisha. Radhe Shyam Rasiya is the voice behind the ultimate song Raja Raja Kareja Samaja. The song is also recognised as the anthem of every bachelor's party. Each time he performs on stage, Radhe has a major demand for this song. The singer has not got much popularity in Bhojpuri industry but is till date he known for his song.






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