

EXECUTIVE SUMMARY REPORT
ON
ROLE OF CONSERVATION EDUCATION

BY –



**BHARATIYA ENGINEERING,
SCIENCE AND TECHNOLOGY
INNOVATION UNIVERSITY (B.E.S.T.I.U)**

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Executive Summary

1. Conservation education (CE) at BESTIU

BESTIU is aware that all individuals, Institutions, NGOs (Non-Government Organisations) and Government have to work hand in hand in order to conserve, preserve and protect the Mother Earth and its Environment before it is too late. During ongoing COVID- 19 Pandemic it has initiated a series of five Webinars on weekly basis Conservation education (CE) covering three themes.

2. The Bharatiya Engineering Science and Technology Innovation University BEST IU and World Forum for Education have initiated a series on webinars and workshops under CE.

3. The various themes under Conservational Education broadly are

- a. **Indigenous Knowledge systems** - Fabric and handloom, art, music, agriculture, Well-being, dance forms and archaeology.
- b. **Earth** – Environment, Climate change, Energy, Soil, Water.
- c. **Culinary** – Food cultures, Understanding heritage cuisines, ancestral vessels and their significance

4. Professional experts will participate as speakers and share their insights and views. All the webinar proceedings will be documented and translate into a roadmap which will be shared as a guide to policymakers, institutions, and partners.

5. These Webinars will witness participants from all continents across the Globe.

6. Vision of BESTIU- We at Bharatiya Engineering Science and Technology Innovation University– (B.E.S.T IU), Andhra Pradesh have a vision to create a World Class Social Impact conglomerate where learning is accessible and affordable, innovators are groomed and their ideas are incubated.

7. WFE – World Forum for Education is the vision initiative of BESTIU where we believe that Education is much more than the transmission of knowledge and skills in a formal structure. It covers knowledge at all levels, coming from any innovator, creator and resource person which must receive a platform for showcase and credit and World Forum for Education is a vision initiative of BESTIU to integrate organizations and individual knowledge givers who have made significant contributions for an impactful advancement of knowledge in society and nations at large.

8. WFE aims to showcase knowledge that drives creative, independent, scientific and economical works which inspire positive changes in the learners and benefits society.

9. We believe Conservational Education as an important aspect to core learning systems through Transdisciplinary integrated learning approach. When students apply

acquired knowledge, skills and values, they can actively take a leadership role for a range of real life local conservation issues. These educational outcomes lead to tangible, on the ground conservation outcomes.

About Conservational Education and Outcomes

Conservation education (CE) at BESTIU

BESTIU is aware that all individuals, Institutions, NGOs (Non-Government Organisations) and Government have to work hand in hand in order to conserve, preserve and protect the Mother Earth and its Environment before it is too late. During ongoing COVID- 19 Pandemic it has initiated a series of five Webinars on weekly basis Conservation education (CE) covering three themes.

What is Conservation education (CE)?

CE is the process of influencing attitudes, emotions, knowledge, and behaviour of people about environment, culture and heritage. It is done through variety of techniques and methods to bring people closer to the natural world.

It helps people understand and appreciate value of our natural resources , heritage and culture and feel need to conserve these for future generations. It makes us wisely use resources for sustainable development. Through this the critical thinking skills are developed to understand the complexities of ecological problems. Conservation Education encourages for making informed decisions.

Conservation education provides authentic opportunities for learning and gives youth, participants an opportunity to connect with their local community in a meaningful way.

Teaching conservation education is not an added extra task or more work. It is about providing students and other stakeholders with a real-life context on which to base their learning, and an opportunity to apply their learning to authentic local community opportunities.

The University sees conservation education as a component of the larger umbrella - environmental education (EE),Heritage and Culture Conservation or education for sustainability (EFS).

Education has to be ABOUT, IN and FOR the environment , heritage and culture - developing knowledge and skillsets.

Best practice and Outcomes

Best practice in conservation education results in a range of outcomes. Through students and people applying acquired knowledge, skills and values, they can actively take a leadership role for a range of real life local conservation issues. These educational outcomes can certainly lead to tangible, on the ground conservation outcomes.

The University also plans to organise a variety of workshops, training programmes with their partners to enable Stakeholders from different regions to share knowledge of their culture, traditional knowledge systems and create a sense of appreciation for the diversity and richness of our natural and cultural heritage. These cross cultural programmes will provide an opportunity to interact **on each others** experiences and are invitations to explore and grow. They offer a journey of personal discovery into the richness and challenges of other **cultures** and communities.

Lead Research teams-

Theme 1 Earth-

Dr D L Maheshwar – Horticulturist (BESTIU Vice Chancellor)

Dr Mallikarjun – Agronomist (BESITU Associate Dean)

Dr Rangaswamy – Plant Pathology (BESITU Associate Professor)

Dr Ravi Kumar – Animal Husbandry (BESITU Associate Professor)

Theme 2 Indigenous Knowledge Systems-

Suhail Bhat – Forestry (BESTIU , Associate Professor) Conservation of biodiversity

Ms Sandeepika – Agri Engineering (BESTIU , Associate Professor)

Mr Venkatesh – Seed Science (BESTIU , Associate Professor)

Mr Tharun Kumar – Agronomy (BESTIU , Associate Professor) Agricultural Innovations

MS Soumya chitnis – Agronomy (BESTIU , Associate Professor) Dance and Music

Dr Rangaswamy – Plant Pathology (BESTIU , Associate Professor) Agricultural Innovations

Theme 3 – Culinary -Food Cultures

Ms Manjushree – Farm Extention ((BESTIU , Associate Professor)

Ms Soujanya – Horticulture (BESTIU , Associate Professor)

Mr Shazil Ahmed – Sr Director and CTO

Theme 1

Earth

Introduction

Since the start of the Industrial Revolution, the Earth has warmed by about 0.9 degrees Celsius, even if we try and immediately stop all emissions, we cannot stop global warming. The understanding of the following few major nature linked components essentially drive the ecosystem for sustenance. Academic approach towards conservation, value-addition and productive management with individuals and community stakeholders ensures sustainability.

Sub Topics

The environment plays an important role in the healthy living of human beings, and it provides air, food, and other needs. Humanity's entire life support system depends on the well-being of all the environmental factors. Earth is the third largest of the terrestrial planets, only one natural satellite. 70% of the Earth's surface is covered in water and is a blue planet and is the only planet known to have life and treasure its many wonders, starting with the air we breathe. Global warming is the increase of earth's average surface temperature due to greenhouse gases and causing the planet to warm up. Climate change is recognized as one of the biggest crises of our time.

Soil is a vital part of our environment. Soils, as a part of ecosystems, are the biologically active part of the outermost layer of the earth's crust. Soil is an important carbon sink storing 10% of the world's carbon dioxide. Soils allow plants to grow, holds and cleans water, recycles nutrients, and provides a home for a multitude of organisms on earth. Similarly, plants are really important for the planet and all living things. Plants help to clean water too. 90 percent of the foods humans eat come from plants. Human survival depends on plants and forests. Besides providing habitats for animals and livelihoods for humans, forests also offer watershed protection, prevent soil erosion, and mitigate climate change.

Water is one of the most important substances on earth. All plants and animals must have water to survive. If there was no water there would be no life on earth. Water is the universal solvent that predominantly supports plant and animal lives.

Climate change, caused by human activity poses growing risks to people and the environment. Rising temperatures have made storms and droughts more severe. Fossil Fuels coal, petroleum, and **natural** gas are greatest culprits on global warming .The life below water addresses the world's oceans, covering more than 70 percent of the planet and focuses primarily on fisheries, a livelihood activity.

Nature - Earth webinars are series of professional consultative interactions on world's most pressing problems linked to Environment, Soil, Energy, Water and Climate change. Subject experts, practitioners, researchers and environmentalists will provide insights and a rare opportunity for all individuals of the environmental studies, students, and academician. to upgrade their know-how of the latest technologies & strategies in conservation and control.

Specialized faculties of BESTIU along with institutional global partners of World Forum for Education will lead the professional webinars. The views and vision roadmap document will be generated as a guide to policy makers, institutions and partners.

Post the five part series, after the expert advice we shall launch the following for the benefit of all interested participants :-

Workshops – one day and two day with expert speakers and live demos (wherever applicable) on conservation of soil, water , energy .

Courses – Courses leading to Certification, Diploma will be launched for a fee from Bharatiya Engineering Science and Technology Innovation University and their partners.

Theme Two – Indigenous Knowledge Systems

Unity in Diversity

Indigenous knowledge in every culture are basically in an unwritten format generally transmitted orally through generations, through memories and activities that express the values like in songs, dances, folklores, cultural norms/values, beliefs, stories, etc. and therefore faces serious threat and vulnerability of being lost over generations. The current generation youth perceive the knowledge as primitive and old, hence, reluctant in continuing the practices. Though, there has been a growing awareness about the value of the knowledge among the intellectuals, there hasn't been much interventions yet, therefore at BESTIU we plan to bring back these traditions, document them and to fight for its place in the world of advanced technologies. Our youth, individual stakeholders need to do much more than just watch the knowledge disappear. Our countries that are abode of thousands of such indigenous knowledge systems and half of them cannot be traced now need our efforts for conservation. Deliberate effort needs to be made to preserve and protect the knowledge which calls for an extensive research for the identification and documentation of knowledge before it disappears from the face of the earth.

Indigenous People

In India, 705 ethnic groups are recognized as Scheduled Tribes. In central India, the Scheduled Tribes are usually referred to as Adivasis, or tribals which literally means indigenous peoples.¹ With an estimated population of 104 million, they comprise 8.6% of the total population. There are, however, many more ethnic groups that would qualify for Scheduled Tribe status but which are not officially recognised; as a result estimates of the total number of tribal groups are higher than the official figure. The largest concentrations of indigenous peoples are found in the seven states of north-east India, and the so-called “central tribal belt” stretching from Rajasthan to West Bengal. India has several laws and constitutional provisions, such as the Fifth Schedule for central India and the Sixth Schedule for certain areas of north-east India which recognise indigenous peoples' rights to land and self-governance. The laws aimed at protecting indigenous peoples have numerous shortcomings and their implementation is far from satisfactory. The Indian government voted in favour of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) with a condition that after independence all Indians are considered indigenous. However, it does not consider the concept of “indigenous peoples”, and thus UNDRIP, applicable to India.

Indigenous tradition

Indigenous traditional has immense potential for innovation, especially at the grassroots level. India is a country populated by a number of indigenous communities, most of which have their own set of unique traditional base. These traditional base have played a significant role in the overall socio-economic development of the communities. A study on some of the aboriginal knowledge with special reference to the concept of Indigenous traditional base, prevalent among a number of indigenous communities was carried out and the significance of the same in innovation has been evaluated. The study was conducted within the framework of “sectoral system of innovation”. A wide range of diverse sectors including agriculture, animal husbandry, fishing and textile were considered for the purpose of the study as all these sectors are imperative in Indian context. During the course of the study, it has been observed that there

is an instant need to document and preserve the Indigenous traditional base of different communities, many of which are at the brink of extinction. There is a lack of proper alliance between the practice of traditional and modern thinks. There are serious issues related to intellectual property rights. An appropriate association between the traditional and modern systems has immense potential to benefit the society.

Agriculture

Indigenous Agriculture

Sustainable food production system is the key to sustainable development especially for hill communities where agriculture is the mainstay of economy. History shows that human societies that can protect their livelihood-based natural resources are able to sustain themselves. So even today we find several indigenous communities obtaining sustained and adequate income/returns from their agriculture because of sustainability inbuilt in it. Besides production of food, proper protection of the environments through sustainable practices is always the inherent accompanying objective of agriculture in such communities. The paper argues that indigenous knowledge and practices formed the basis of sustainable development particularly in hill agrarian communities. The paper draws evidences from the cases of the Apatani and the Angami tribal communities of the Northeastern Region of India. Using interview schedules, data were collected from practising farmers and government officials working in the areas concerned. Over the years, the Apatani farmers are able to obtain sustained agricultural yields from their terrace wet rice fields by following their indigenous agricultural practices and community traditions. Their agricultural production is also strongly linked to the proper management of the forests around them. The Angami community, by utilising their traditional knowledge on alder trees, are able to rejuvenate their degraded jhum (slash and burn agriculture) lands and put them into more productive and sustainable uses. It is also revealed in the paper that organisational innovations are required as well to make use of the technical innovations are present.

Indigenous Vegetables of India

The Indian subcontinent represents one of the richest diverse genetic resources. Of the estimated 250,000 species of flowering plants at global level, about 3,000 are regarded as food source, in which only 200 species have been domesticated. Global diversity in vegetable crops is estimated at about 400 species, with about 80 species of major and minor vegetables reported to have originated in India. However, with the advent of cut-and-burn agriculture and green revolution/ commercialised agriculture, the development project areas and related activities of these diverse resources are declining at a fast pace. Overgrazing, deforestation, and over exploitation of native resources under range situations have eroded the biodiversity from this unique ecosystem. Moreover, traditional knowledge about these important indigenous plant species has also decreased in the younger generation influenced by urbanisation. Indigenous plant species provide a variety of products like food, medicines and raw materials. They are also an important source of renewable energy. The Indian subcontinent has been one of the rich emporia of 2,500 plant species used in indigenous treatment and food sources. This paper highlights important annual and perennial indigenous herbs, shrubs and tree vegetables and

their use in alleviating hunger, malnutrition and improving health, thereby making a difference in livelihoods.

Wellness and Health

Indigenous Systems of Medicines:

Ayurveda: The doctrine of Ayurveda aims to keep structural and functional entities in a functional state of equilibrium, which signifies good health. Any imbalance due to internal and external factor causes disease and restoring equilibrium through various techniques, procedures, regimes, diet and medicine constitute treatment. The philosophy of Ayurveda is based on the theory of Pancha bhootas (five element theory) of which all the objects and living bodies are composed of.

Siddha: Siddha system of medicine emphasize that medical treatment is oriented not merely to disease, but also has to take into account the patient, environment, age, habits, physical condition. Siddha literature is in Tamil and it is largely practiced in Tamil speaking parts of India and abroad.

Yoga and Naturopathy: Yoga is a way of life, which has the potential for improvement of social and personal behavior, improvement of physical health by encouraging better circulation of oxygenated blood in the body, restraining sense organs and thereby inducing tranquility and serenity of mind. Naturopathy is also a way of life, with drugless treatment of diseases. The system is based on the ancient practice of application of simple laws of nature. The advocates of naturopathy focus on eating and living habits, adoption of purification measures, use of hydrotherapy, baths, massage etc.

Archaeology

With the Indus Valley civilization and several subsequent empires and kingdoms, India is one of the World's archaeological gems. Be it ancient forts or some of the world's oldest universities, India has more than a thousand archaeological sites – many of which are accessible to travellers and tourists. Since ancient times the region has seen several cultures flourish due to the endless conquest of the region between various empires and kingdoms. These cultures have all brought different technological and architectural advances to the region.

Fabric and Handlooms

Handloom fabrics and handloom weavers form an integral part of the rich culture, heritage and tradition of India. Apart from providing one of the basic needs of human beings, along with a sizable contribution to GDP and export, this Industry provides direct and indirect employment to lakhs of people in the rural and urban areas. Handloom is one of the largest employment providers after agriculture in India. This sector provides employment to 43.31 lakh persons engaged on about 23.77 lakh handlooms, of which 10% are from scheduled castes, 18% belong to the scheduled tribes, and 45% belong to other backward classes. Production in the handloom sector recorded a figure of 7116 million sq. meters in the year 2013-14. During 2014-15, production in the handloom sector is reported to be 3547 million sq. Meters (April-September-2014).

This sector contributes nearby 15% of the cloth production in the country and also contributes to the export earning of the country. Ninety five percent of the world's hand woven fabric comes from India. It has been sustained by transferring skills from one generation to another. The strength of the sector lies in its uniqueness, flexibility of production, openness to innovations, adaptability to the suppliers' requirement and the wealth of its tradition.

Indigenous Knowledge and Cultural Diversity

Indigenous Knowledge and Cultural Diversity

Indigenous knowledge is the unique knowledge confined to a particular culture or society. It is also known as local knowledge, folk knowledge, people's knowledge, traditional wisdom or traditional science. This knowledge is generated and transmitted by communities, over time, in an effort to cope with their own agro-ecological and socio-economic environments (Fernandez, 1994). It is generated through a systematic process of observing local conditions, experimenting with solutions and readapting previously identified solutions to modified environmental, socio-economic and technological situations (Brouwers, 1993). Indigenous knowledge is passed from generation to generation, usually by word of mouth and cultural rituals, and has been the basis for agriculture, food preparation and conservation, health care, education, and the wide range of other activities that sustain a society and its environment in many parts of the world for many centuries.

The generation, adaptation and use of indigenous knowledge are greatly influenced by the culture. Economic, social, political and geographical contexts also contribute to generate indigenous knowledge, but to a lesser extent. Therefore, indigenous knowledge systems show great diversity not only among ethnic groups but among locations also. There are at least four ways to understand and compare the indigenous knowledge systems in different cultures.

- A different knowledge of similar things;
- A different knowledge of different things
- Different ways of organizing knowledge
 - And Different ways of preserving and transferring knowledge.

Indigenous Knowledge and Biological Diversity

Biological diversity is now threatened by extinction. According to Quiroz (1996), biological diversity and cultural diversity are two sides of the same coin. Living diversity in nature corresponds to a living diversity of cultures. With cultural and environmental changes, both biodiversity and the indigenous knowledge systems vital to sustainability are being lost at an incredible rate. It is widely accepted that traditional farmers conserve the biodiversity as they are the practitioners of environmental processes designed to transform, manage and use the

nature. Therefore, the indigenous knowledge accumulated by these people constitutes a pool of techniques which are of great importance for long-term sustainability.

Use of Indigenous Knowledge in Sustainable Development Process

All most all the development actors have now recognized the value of participatory approaches in decision making for sustainable development. Indigenous knowledge provides the basis for grassroots decision-making. It is recently found that the indigenous knowledge of ecological zones, natural resources, agriculture, aquaculture, forest and game management is far more sophisticated than previously assume. Furthermore, this knowledge offers new models for development that are both ecologically and socially sound. The value of indigenous knowledge is not only limited to agriculture, environment and biodiversity. It has an immense value in education, medicine etc. Indigenous medical practitioners tackle prevention as well as therapy, perceiving illness and healing holistically. Therapies often enhance healing by treating the whole being, rather than targeting specific symptoms, and trace the disease to the context of the person's life, rather than a bacteria or virus. Exploration of plant medicines (ethnopharmacology) has evolved over millennia to a current usage of some 20,000 species, which still form the major sources of medicine for the population of the majority of the world. Western science, in contrast, has fully studied only 1100 of Earth's 265,000 plants (of which some 40,000 have potential medical or nutritional value).

Indigenous Knowledge in India

India is rich in biodiversity as well as cultural diversity. It also has a long history. There for India is very rich in indigenous knowledge. Some examples given here under:

1. Traditions of tribal people in management Collection and management of woods and non-wood products

- Traditional ethics, norms and practices
- Traditional practices on protection, production and regeneration
- Cultivation of useful plants in cultural landscapes and agro forestry systems
- Creation and maintenance of traditional water harvesting systems

2. Biodiversity in sacred cliffs

Cliffs are completely forgotten cultural landscape elements that support a variety of species of plants and animals in India

- Cliffs are undisturbed ancient woodlands, dominated by tiny, slow-growing and widely spaced trees
- Cliffs in Udaipur and Kota districts of Rajasthan and found that 50 cliffs in central India
- Many medicinal plants are cultivated by local people in India

3. Bhotiya community

Around the Nanda Devi Biosphere Reserve in the Western Himalaya, the Bhotiya community.

- They cultivate medicinal plants on their agriculture fields of a total of 71 families, 90% cultivated medicinal plants on 78% of the total cultivated area (15.22 ha).
- Around 12 species of medicinal plants are under cultivation.

Among various medicinal plants, *Angelica glauca* and *Allium stracheyi* are narrow range endemic

- *Allium stracheyi*, *Picrorhiza kurrooa* and *Nardostachys grandiflora* have been recorded in Red data book of Indian plants
- The production of medicinal plants is found to be comparable with annual production of traditional crops

4. Tribal communities of Meghalaya-Khasis, Garos and Jaintias

They have the tradition of environmental conservation based on various beliefs.

- Particular patches of forests are designated as sacred groves under customary law and are protected from any product extraction by the community
- Such forests are very high in biological diversity and has many endangered species including rare herbs and medicinal plants 79 sacred forest have identified and the floristic survey revealed that these groves consists of 514 species representing 340 genera and 131 families
- About 1.3% of total sacred grove area was undisturbed, 42.1% had relatively dense forest, 26.3% had sparse canopy cover and 30.0% had open forest.
- The species diversity indices were higher for the sacred grove than for the disturbed forests Indigenous peoples in INDIA

5. Badagas – originated from Karnataka

Irulas – Nilgiris, Kotas – Nilgiris, Paniyas – Nilgiris, Kurumbas – Nilgiris, Kattunayakan – Nilgiris, Todas – Ooty

a. Badagas

Originated from Karnataka. Now they live in Kunoor, Kothagiri, Nilgiris. They are the major tribes in Tamil Nadu. They conserve forests and trees as their forefathers and they considered it sacred

They mainly use plants for all their diseases are *Ficus carica*, *Annona reticulate*, *Polygonum chinensis*, *Eleagnus kologa* – heart pain and fever, *Berberis tinctoria* – Jaundice, stomach, stomach ache, *Psidium guajava*, *Physalis minima* – Intestinal pain, *Celtis cinnamomnea* – cuts and wounds, *Rubus molucanus*- easy digestion, paralysis, also uses *Morus alba* for constipation, blood Purification

b. TODAS

Toda people are a small pastoral community who live on the isolated Nilgiris plateau of Southern India. They traditionally trade dairy products with their Nilgiri neighbor people. The last decade both Toda society and culture have also become the focus of an international effort at culturally sensitive environmental restoration. The Toda lands are now a part of The Nilgiri

Biosphere Reserve, a UNESCO-designated International Biosphere Reserve and is under consideration by the UNESCO World Heritage Committee for selection as a World Heritage centre. The Todas are vegetarians and do not eat meat, eggs which can hatch, or fishes

Music

The music of India includes multiple varieties of classical music, folk music, filmi, Indian rock, and Indian pop. Indian pop and Indian rock are derived from western rock and roll. India's classical music tradition, including Hindustani music, Bhartiya music and Carnatic, has a history spanning millennia and developed over several areas. Music in India began as an integral part of socio-religious life.

Art / Dance

Cradle of Culture – Rediscovery of Wisdom of India

Indian Classical Dance Forms

1. Our identity is our culture and tradition! It defines us in the World...! It is not infrastructure or development of nation decides its identity but its culture and heritage is a key factor for to be recognized as better people and better nation. There are many countries more developed and smaller in size with good infrastructure, but India is known for its cultural heritage, diversity and 5,000 years of history. Culture is our asset. Culture is our identity. Wherever you go in India, every millimeter can be measured with culture. There is so much to see that even one life is not enough. There are monuments, history, continuing traditions, living cities and villages, crafts, music, food, language, costumes -- what not? From Ladakh to Kanyakumari, we are a huge country, with so much variety and diversity. Something is waiting everywhere.
2. Excavations, inscriptions, chronicles, genealogies of kings and artists, literary sources, sculpture and painting of different periods provide extensive evidence on dance in India. Indian classical dance is an ancient heritage of more than 5000 years old. The portrayals of various forms of classical dances are still can be witnessed in dance postures all over the historical temples and monuments from all over the country. India is a land of rich cultural heritage, where music and dance have been interwoven with the social fabric. These forms portray human emotions, love and devotion, narrate stories from myths and are integral parts of the celebration of life.
3. Contemporary classical dance forms have evolved out of the musical play or sangeet-nataka performed from the 12th century to the 19th century. The Indian classical dances have two basic aspects - Tandava (movement & rhythm) and Lasya (grace, bhava & rasa).
 - i. The three main components are
Natya (the dramatic element of the dance i.e. the imitation of characters)

- ii. Nritta (the dance movements in their basic form)
 - iii. Nritya (expressional component i.e. mudras or gestures).
4. The nine rasas are - Love, Heroism, Pathos, Humor, Anger, Fear, Disgust, Wonder and Peace. The Natya Shastra written by Bharat Muni is the most prominent source for the Indian aestheticians for establishing the characteristics of the dances. An Indian scripture 'Natya Shastra' is almost 2500 years old and probably the oldest surviving and guiding text on the subject, which leads to greater details about grammar and rules covering music, dance, makeup, stage design, virtually touching all dimensions of the stagecraft. Root elements of theory and practices of the various performance arts rooted in religious Hindu musical theater styles can be traced back to the Natya Shastra. Over the period, classical Indian dance forms are interpreted and performed by so many artists in different styles, which are associated with a rich set of body postures and gestures, a grammar, mythological stories and sculptural depictions.
 5. There are eight recognized classical dances based on sources and regions. They are Bharatanatyam (Southern India), Kathak (Northern India), Kuchipudi (Andhra Pradesh), Odissi (Odisha, South Eastern India), Kathakali (Kerala), Sattriya (Assam, North-Eastern India), Manipuri (Manipur) and Mohiniyattam (Kerala). Each one of these dance forms is originated from different parts of our country with their gracefulness and beauty which impart happiness and joy to the audience. Among the above all, Bharatanatyam, Kathak and Odissi have reached to the different levels in Indian.
 6. Bharatanatyam is one of the oldest existing classical dance forms of India, which originated in Tanjore, Tamil Nadu, a southern state of India. Bharatanatyam style is noted for its fixed upper torso, legs bent or knees flexed out combined with spectacular footwork, a sophisticated vocabulary of sign language based on gestures of hands, eyes and face muscles. Music and a singer accompany the dance. There are various dance pieces performed based on the mythological beliefs. This dance form improves balance, strength and gives elegance to the body and awareness about our culture.
 7. The importance of intangible cultural heritage is not the cultural manifestation itself but rather the wealth of knowledge and skills that is transmitted through it from one generation to the next. The social and economic value of this transmission of knowledge is relevant for the youth of the nation as well as the world. On one hand, we say we need to celebrate diversity. On the other hand, we are giving birth to a single, monoculture. Villages are becoming towns, towns are becoming cities and cities are becoming metropolises. Migrants are assimilating into the new culture and losing their identity.
 8. Yet, it is not surprising that these renowned classical dance forms are under threat by the contemporary western dance forms. No doubt that western dance form gives immense pleasure to the eyes. Now it is the need of the hour to relook into culture and heritage to find a way of living to endless joy and

satisfaction. Preservation of heritage and ensuring its accessibility to future generation to understand the importance of it for enhancement of richness in their lifestyle via digital multimedia technology. Advanced multimedia technology is giving new ways forward to spread the joy of living our culture and heritage.

9. BESTIU being the first innovative university in the country, we are happy to impart the same knowledge to students worldwide. Miss Soumya Chitnis, Assistant Professor of Agronomy in BESTIU is also a young, talented Bharatnatyam dancer. She is in to learning and practicing the Bharatanatyam from the past 20 years and runs dance school in her area, which is center of wisdom and knowledge about Indian culture to the young growing minds. People have witnessed her performances in more than 1000 dance programmes all over the country in her dance career, has won many awards like Natya mayuri and Karnataka ratna, and won the hearts of many people with huge appreciation by them. She also was a part of AKKA sammelana held at Chicago, USA in the year 2008. She teaches dance to our students as well as the outsiders. She has passed all the Bharatnatyam exams conducted by Akhila Bharatiya Gandharva Mahavidyalaya, Mumbai and Karnataka government. She is one of our capable faculty who is interested in academics and culture. Thrives hard to disseminate the joy of dance as means to celebrate the lifeSpecialized faculties of BESTIU along with institutional global partners of World Forum for Education will lead the professional webinars. The views and vision roadmap document will be generated as a guide to policy makers, institutions and partners.

Post the five part series, we shall launch the following for the benefit of all interested participants :-

Workshops – one day and two day with expert speakers and live demos (wherever applicable) on dance,music , cross cultural engagements , yoga , Ayurveda , traditional Agricultural practices ,Indigenous innovations in .

Courses – Courses leading to Certification, Diploma will be launched for a fee from Bharatiya Engineering Science and Technology Innovation University and their partners.

Theme Three – Culinary

Concept note on Paaka (Culinary) Shastra

1. Food is the most important basic necessity of human life. It is not just a source of energy, should actually be a source of nutrition and medicine. Nutritious food plays a vital role in the promotion of health and disease prevention. At different stages of life, the constitution of the human body changes and it requires unique eating habits to sustain normal physiological functions.
2. Every civilization has its own unique cuisine and cooking styles, and so is the Indian Civilization. Indian cookery was significantly influenced by Ayurveda which emphasizes dietary regimen for both the healthy and the ill. Thus, Indian cooking is known for its medical properties. Our country is a home to a number of regional cuisines that showcase its culinary diversity. Ancient Indians knew about the importance of the food and its role in human life, this can be understood by reading old literatures. The Sanskrit sources of ancient India indicate their contribution in this field. One such source is Bhojanakutūhala authored by Raghunatha Ganesa Navahasta, a Maratha Brahmin. It is a typical Sanskrit work dealt with the principles of dietetics and culinary art. He mentioned about Paka Shastra, refers to the “science and art of cooking”.
3. India is known as a land of taste and traditional foods, also unique in its own way. Indian cuisine varies from region to region. Traditionally, some states in India have their own unique dishes, which they often prepare during religious and social gatherings. Indian cuisine is meant to be eaten socially, in groups, until everyone is fully satisfied. You will be served all your courses at once on a plate of food called a thali. A thali is a large tray that is used to serve all the foods at once. Some foods are mild, sweet and some are spicy and hot. There are countless Indian traditional recipes, which varies from state to state.
4. Unfortunately, this rich heritage is slowly fading out without any records of it due to growing popularity of western food culture, urbanization, rising city population, hectic and busy lifestyle, fancy in taste and easy availability. Present generation are shifting their liking towards western food. There was no harm in having such type of food occasionally as a variation from the routine taste of the regular food. But, its regularity of consumption has started increasing and since about a decade. Western food had started becoming a part of eating outside the house. Now, slowly it has entered our kitchens and thus Chinese noodles, Italian pasta, Spanish pizza, etc. have become regular cooking items in many homes.
5. In order to maintain a healthy, balanced life, people need to go back to the traditional ways of eating and obtaining food that 's harmless to their bodies. During the pandemic situations like COVID-19, lot of importance was given to increase our immune system. The traditional recipes play a major role during such pandemic situation. The recipes like preparation of Khashayam

with various spices are the age old recipes, which gained importance during these times. Like this there are lot recipes which have to brought back.

6. People speak lot about the conservation of biodiversity and many other natural resources, but there is also a need to conserve these traditional recipes. The old methods of food preparation and the combination of the ingredients is very unique, healthy, nutritious and also have medicinal values. The nutritional importance of traditional foods need to be recognized and popularized. The perception of the present generation is very important to promote nutritional education in youths. They should be taught about the importance of the traditional recipes.

Indigenous Food Cultures

With the Indigenous Food Cultures considerations in mind, Indigenous food cultures clearly provide a wide range of lessons that can be used to address poor health, environmental crisis and natural resources management.

Spirituality connects people to the food they consume. It is a popular belief among indigenous people that if, for example, a hunter catches game, the game—the body of a dead animal—is considered a sacrificial act, sacrificial because the living animal has made itself available. With this view, the act of catching game is not a result of the hunter's dexterity; it is the result of the animal sacrificing its life for the hunter, enabling him to feed himself and his family. Such belief mandate Indigenous people to accord great respect to the food they eat and be moderate in their consumption to show their respect for the lives of the animals slaughtered. This belief also encourages Indigenous communities to rely largely on traditional crops instead of animal flesh except the nomadic families who depend mainly on animal products.

Furthermore, Indigenous food cultures make use of every part of crop or animal that is harvested effectively. These food practices ensure that food wastage is reduced to the barest minimum. Food wastage is also restricted through cultural norms and values that forbid individuals from taking more than required at a time and emphasize the use of crop or animal by-products. For instance, in Indigenous animal husbandry, livestock are mainly fed with crop by-products while substantive foods are strictly reserved for human consumption. These practices provide some advantages: first, humans are saved from competition from farm animals for food which eventually help to ensure food sufficiency.

Restoring indigenous food sovereignty is essential to address severe food and nutritional security coupled public health challenges of contemporary communities .

However, challenges related to indigenous food sovereignty are extremely complex due to interlinkage of different cultural, ecological, social, political, and economic factors.

Therefore, to address such complex indigenous food sovereignty issues, it is important to develop more sustainable and community oriented strategies based on systems approach by understanding ecological, cultural, social, and economic contexts of traditional foods of the country.

After the five part series of workshops on Food Cultures, Indigenous traditional recipes , medicinal and dietary nutritional benefits of local cuisines , organic fresh food , we shall move to experts conducting one / two day workshops . These workshops will revolve around themes of traditional recipes and nutritional value , Building immunity with organic and indigenous recipes , Global engagement in Food cultures , Ancestral vessels , conservation and their benefits .