

Rs. 30.00  
ISSN-0566-2257



# UNIVERSITY NEWS

*A Weekly Journal of Higher Education*

**Association of Indian Universities**

**Vol. 62 • No. 44 • October 28 - November 03, 2024**

**Gouranga Charan Nanda**

Relevance of Indian Knowledge System and Values in the Perspective of National Education Policy–2020

**Chinmoy Kumar Ghosh**

Contemporary Relevance of Swami Vivekananda's Thoughts on Education

**B Bhargava Teja**

*Ayodhya: A Sustainable Administrative Management Model for Aspiring Bharat*

**Gedam Kamalakar**

Indian Knowledge System

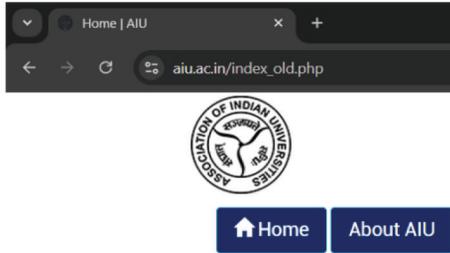
**Jagdeep Dhankhar**

Empowering Youth: The Path to a Developed *Bharat* by 2047

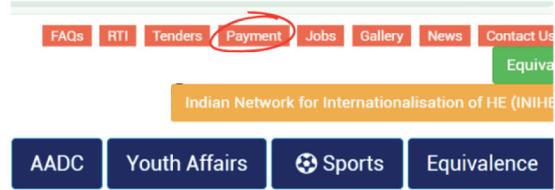
– **Convocation Address**

# Your Guide to making payment for **Advertisement Tariff** online

1. Open AIU's website-  
[aiu.ac.in/index\\_old.php](http://aiu.ac.in/index_old.php)



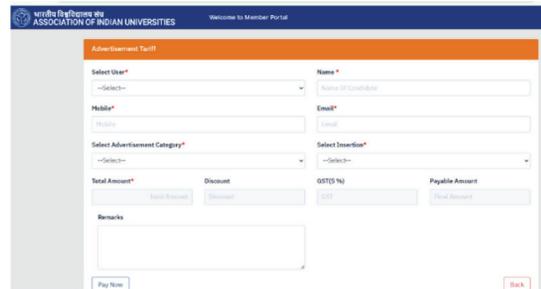
2. Open the **Payment Section** on the top of the website.



3. You'll be directed to this page where you can find **Advertisement Tariff-Pay Now** section. Click on this button.



4. An **Advertisement Tariff Portal** will open. You can fill the details accordingly and can make the payment as per the details selected.



OR

- 1) Search [payments.aiu.ac.in](http://payments.aiu.ac.in) in the search bar above.
- 2) Click on the **Advertisement Tariff** section of the page.
- 3) You will be directed to the Advertisement Tariff Portal.

OR

Following payment modes may be used for making the payment to AIU:

- a) Advertisement Tariff Portal.
- b) NEFT/RTGS

1	Bank Account No.	0158101000975 (Saving)
2	Beneficiary Name	Association of Indian Universities
3	Address	16, Comrade Indrajit Gupta Marg New Delhi – 110 002
4	Bank & Branch Name	CANARA BANK DDU MARG
5	Bank's Address	"URDU GHAR" 212, Deen Dayal Upadhyaya Marg New Delhi – 110 002
6	MICR Code	110015005
7	Branch Code	0158
8	IFSC Code	CNRB 0000158
9	PAN NO.	AAATA0407F
10	GST Regn No.	07AAATA0407F1ZG

For the case of Transfer via NEFT/RTGS, the proof of payment may please be communicated on E-mail ID: [advtun@aiu.ac.in](mailto:advtun@aiu.ac.in) for its linking and settlement at our end.

## In This Issue

ITEMS	PAGE
<b>Articles</b>	
Relevance of Indian Knowledge System and Values in the Perspective of National Education Policy-2020	3
Contemporary Relevance of Swami Vivekananda's Thoughts on Education	11
<i>Ayodhya</i> : A Sustainable Administrative Management Model for Aspiring Bharat	20
Indian Knowledge System	28
<b>Convocation Address</b>	
Raja Mahendra Pratap Singh State University, Aligarh, Uttar Pradesh	39
<b>Campus News</b>	42
<b>Theses of the Month (Science &amp; Technology)</b>	45
<b>Advertisement</b>	50

**New Subscription Tariff**  
 (Effective April 01, 2020)

	Inland		Foreign	
	Institutions	Academics/ Students	Airmail	Surface Mail
	<i>(at residential address only)</i>			
	Rs.	Rs.	US\$	US\$
1 year	1250.00	500.00	210.00	170.00
2 years	2200.00	900.00	400.00	300.00

Subscription is payable in advance by Bank Draft/MO/NEFT only in favour of Association of Indian Universities, New Delhi.

**Patron**

Prof. Vinay Kumar Pathak

**Editorial Committee Chairperson**

Dr (Ms) Pankaj Mittal

**Editorial Committee**

Dr Baljit Singh Sekhon

Dr Amarendra Pani

Dr Youd Vir Singh

**Editor**

Dr Sistla Rama Devi Pani

# Relevance of Indian Knowledge System and Values in the Perspective of National Education Policy-2020

Gouranga Charan Nanda\*

India is a classic land of culture with a strong system of knowledge and ethics. The *Vedas* and *Upanishads* provide the basis for the indigenous knowledge system. As a matter of fact, philosophy as a branch of study emerged in Indian Soil much prior to the emergence of philosophy in Greece. The Indian philosophies are very much *Dharma*-oriented and prescribe a robust moral code of conduct. The concept of *Dharma* is different from the Western concept of religion. In India *Dharma* refers to a way of life arising out of the problems of life. Although philosophies like *Buddhism*, *Jainism*, and *Charvak* are *Nastik Darshanas*, their genesis can be found in *Astika Darshanas* like *Vedanta- Mimansa*, *Sankhya- Yoga*, and *Nyaya- Vaisheshika*. The Orthodox (*Astika*) philosophy believes in the authenticity of the *Vedas*, but the Heterodox (*Nastika*) philosophy doesn't accept the authority of the *Vedas*.

**Concept of Dharma**

Whatever sustains the society is *Dharma* and whatever creates perversion in society is not *Dharma*. According to *Vaisheshika* Darshan of Kanad, whichever increases the soul power towards progress and prosperity in all directions and whichever doesn't decrease our soul power is *Dharma* which is considered as social law. Therefore, whatever is against social law is to be given up.

**Characteristics of Dharma (Manu Smriti)**

**Dhrti (patience)**-Life is to be approached with patience and perseverance. One should not be in a hurry to get instant outcomes.

**Kshama (forgiveness)**- It is believed in the Indian context that only a strong person can forgive. He who has the power to punish can also pardon.

**Damah (self-control)**- This attribute indicates that mean can suppress his ill feelings.

**Asteya (non-stealing)**- One can't claim something which doesn't belong to him.

**Saucha (cleanliness)**- It can be of two types i.e., internal and external. It is the obligation of man to keep the external environment clean and his internal organs clean too.

**Indriyanigraha (control of organs)**- The senses bring sorrow and suffering to man. The senses divert the attention towards attachment or aversion. Therefore, the senses need to be restrained to lead a blissful life.

\*Former Professor of Education and Dean, Ravenshaw University, Cuttack-753003 Odisha. E-mail:gourangacharannanda@gmail.com

**Dhii (intellect)**- Man is a thinking being capable of using his intellect to solve problems. Therefore, the Gayatri Mantra is very popular in India which observes

“Om bhūr bhuvah suvah tatsaviturvarenyam  
bhargo devasyadhīmahī dhiyo yo nah prachodayāt”

“We meditate on the glory of the Creator;  
Who has created the Universe;  
Who is worthy of Worship;

Who is the embodiment of Knowledge and Light;  
Who is the remover of all Sin and Ignorance;  
May He enlighten our Intellect.”

Thus, the intelligence of man determines his course of action (*Marga*) and needs to be cultivated to distinguish between right and wrong, good and evil.

**Vidyā (spiritual knowledge)**-This type of knowledge is called *Para Vidya* which is also called as *Atma vidya*. Acquisition of spiritual knowledge leads to liberation. It is a state where man realizes his pure existence, pure consciousness, and pure bliss. Education is therefore defined as “*Sa Vidya Ja Vimuktaye*” meaning knowledge is that which liberates. (*Vishnu Purana*)

**Satyam (truth)**-Truth means changeless (*nitya*). He who practices truth in thought, speech and action is a genuine religious-minded person. Gandhi’s life is an example of Truth who observed that Truth is God.

**Akrodha (non-anger)**- A religious person can’t get angry because, in an angry state, one loses his conscience and reasoning. Anger is described as fire and considered as anti- religious. These attributes of Dharma are definitely secular and can be accepted irrespective of cult.

### Concept of Purushartha

Ancient Indian life centers around four cardinal values of Life as *Dharma, Artha, Kama, Moksha*. *Dharma* here means righteous conduct. *Artha* gives power for fulfilment of desires i.e., *Kama* but *Artha* needs to be earned righteously and one must remember that If he is earning in a hundred hands, he should give away in a thousand hands. *Moksha* is the ultimate value of life as accepted by all schools of philosophy except Charvak which implies the attainment of supreme bliss/ divinity and removal of sorrows and sufferings. When somebody attains *Moksha* he gets

rid of all sorrows and sufferings, and achieves a state of eternal bliss, and becomes infinite and get himself free from the bondage of birth and death. *Moksha* can be attained through *Pravritti marga* as well as *Nivritti marga*. One can be a *Garhyasta* (Family Man) and still pursue *Moksha* through *Pravritti marga*, and the second path is *Nivritti marga* which means getting secluded from society. The former is a *Marga* of enjoyment (*Bhoga*), and the later is a *Marga* of sacrifices (*Tyaga*).

The people who resort to *Nivritti Marga* face the following three obstacles which degrade their soul power

- **Putreshana**: When people become self-centric, they work for their family. They try to lift their own people forgetting the interest of the larger society.
- **Vitreshana**- These are the people who focus on accumulation of wealth beyond their needs and are always crazy for material possessions.
- The third obstacle is working for the sake of name and fame i.e., *Lokeshana*

The people who follow *Pravritti Marga* are instructed to clear three debts to attain liberation.

- *Pitru Runa* – debt towards Father/Ancessor
- *Rishi Runa* – debt towards Sages/Teachers
- *Dev Runa* – debt towards the Gods

A follower of *Pravritti Marga* has to choose one of the three options as given below.

- Give more than you get
- Give as much as you get
- Give something as you get something

The people who opt for the first proposition are definitely on their way toward liberation.

### Values Envisaged in Jainism

*Five Yajnas* prescribed by the *Jainism* and endorsed by Gandhiji need to be performed for *Grihasthas*:

- *Brahma Yajna* (service to Brahma the ultimate reality)
- *Deva Yajna* (service to God)
- *Pitru Yajna* (service to ancestors)
- *Manushya Yajna* (Service to human being)
- *Bhoota Yajna* ( Service for Ecological balance)

- Five Moral Vows/ Principles (Pancha Mahavrata) of Jainism
- *Ahimsa* (Non-violence)
- *Satya* (Truth)
- *Asteya* (Non-stealing)
- *Brahmacharya* (Celibacy)
- *Aparigraha* (Non-attachment/Non-possession)

### Triratna of Jainism

- Right Faith (*Samyak Darshana*)
- Right Knowledge (*Samyak Gyan*)
- Right Conduct (*Samyak Charitra*)

### Goals and Methods of Education

In *Brihadaranyaka Upanishad*- Three steps are recommended such as:

- Shravan
  - Manan
  - Nididhyāsan is to be strictly followed for acquiring knowledge.
- Indian value system is global and Indians pray for the well-being of all as follows

“ॐ सर्वे भवन्तु सुखिनः।  
सर्वे सन्तु निरामयाः।  
सर्वे भद्राणि पश्यन्तु।  
मा कश्चित् दुःख भाग्भवेत्।।  
ॐ शान्तिः शान्तिः शान्तिः।।”

Indian life is guided by the following value of *Brihadaranyak Upanishad*

“Om, Asado ma Sadgamaya  
Tamso Ma Jyotirgamaya  
Mrityorma Amritam Gamaya  
Om Shantih Shantih Shantih”  
“Lead me from the unreal to the real,  
Lead me from darkness to light,  
Lead me from death to immortality”.

### Teacher Taught Relationship

The *Kathopanishad* & *Taittiriya Upanishad* envisaged the bond between teacher and taught as follows

“Om Saha Naav[au]-Avatu |  
Saha Nau Bhunaktu |  
Saha Viiryam Karavaavahai |  
Tejasvi Naav[au]-Adhiitam-Astu Maa  
Vidvissaavahai |  
Om Shaantih Shaantih Shaantih ||”

Together may we two Move (in our Studies, the Teacher and the Student),

Together may we two Relish (our Studies, the Teacher and the Student),

Together may we perform (our Studies) with Vigour (with deep Concentration),

May what has been studied by us be filled with the Brilliance (of Understanding, leading to Knowledge),

May it not give rise to Hostility (due to lack of Understanding).

### Concept of Guru

The concept of Guru has been described in different Vedas and Upanishads i.e., *Kathopanishad* defines Guru as Illumined teacher and a realised sage

“Om ajñāna-timirāndhasya jñānāñjana-śalākayā chakṣur unmīlitaṁ yena tasmai śrī-gurave namah”

“I offer obeisance unto Śrī Guru, who has opened my eyes, which were blinded by the cataract of ignorance, with the collyrium (eye wash) of knowledge”

According to Sruti- He knows, who has studied under a preceptor. One has to be entitled to pursue knowledge which is possible through i. *Antahkaran suddhi* and ii. *Shat Sampatti*

### Antahkaran Suddhi (purity of internal organ)

- *Manas* (mind) – the lower, rational part of the mind that connects with the external world
- *Chitta* (memory) – the consciousness where impressions, memories and experiences are stored
- *Buddhi* (intellect) – the decision-making part of the mind
- *Ahamkara* (ego) – the attachment or identification of the ego, also known as “I am-ness.”

One has to purify the mind for concentration, contemplation, and meditation.

### Shat Sampatti (Prerequisites Virtues for Pursuing Knowledge)

A student has to possess the following prerequisites.

- *Shama*: the ability to keep a calm mind irrespective of circumstances

- *Dama*: to have a perfect alignment between your mind and your senses
- *Titiksha*: to maintain a balance and be able to bear it when undesirable situations arise in life
- *Shraddha*: Putting a foot forward before you get the fruit of the action. Having faith in Guru and scripture is the key to acquiring knowledge.
- *Uparati*: to do everything wholeheartedly, finding joy and taking total interest in it and staying detached from the outside world
- *Samadhana*: staying away from skepticism

*Concept of Unity of Knowledge* has been observed in Isha Vasya Upanishad as follows

“Om Purnamadah Purnamidam Purnat  
Purnamudachyate

*Purnasya Purnamadaya Purnamevavashisyate  
Om, shanti, shanti, shanti.”*

The whole is all that. The whole is all this. The whole was born of this whole. Taking the whole from the whole, what remains is the whole.

-Isavasya Upanishad

Buddha’s Moral philosophy prescribes the following noble eight-fold paths (*āryāṣṭāṅgamārga*) for attaining *Nirvana*.

- *Samyakdr̥ṣṭi* (right view)
- *Samyaksāṅkalpa* (right thought)
- *Samyagvākya* (right speech)
- *Samyakkarmā* (right action)
- *Samyagājīvikā* (right livelihood)
- *Samyagyāyāma* (right endeavour/effort)
- *Samyaksam̐riti* (right mindfulness)
- *Samyaksamādhi* (right concentration)

In addition to the above paths, a concept of Bodhisattva is proposed by Lord Buddha.

He who walks along the path of *Mukti* and who can hand over his good deeds for the benefit of others, suffering due to their Karma can be called as a Bodhisattva.

Maharshi Patanjali advocates eight steps for attaining Samadhi which are listed below.

1. Yama (Restraint)	2. Niyama
<ul style="list-style-type: none"> <li>• <i>Satya</i> (Truth)</li> <li>• <i>Asteya</i> (Non- stealing)</li> <li>• <i>Brahmacharya</i> (Abstinence)</li> <li>• <i>Aparigraha</i> (non-possessiveness)</li> <li>• <i>Ahimsa</i> (Non-violence)</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Saucha</i> (cleanliness)</li> <li>• <i>Santosha</i> (contentment)</li> <li>• <i>Tapas</i> (penance)</li> <li>• <i>Svadyaya</i> (study of the Vedic scriptures)</li> <li>• <i>Ishvara Pranidhana</i>: Surrender to God, or worship of God</li> </ul>
3. <i>Asana</i>	4. <i>Pranayam</i> (breath control)
5. <i>Pratyahara</i> (Withdrawal of senses from their external objects)	6. <i>Dharana</i> (Concentration of the <i>chitta</i> )
7. <i>Dhyana</i> (Concentration)	8. <i>Samadhi</i>

### Values Envisaged in NEP–2020

- The purpose of education system is to develop good human beings. The nature of good human beings as specified in the policy are
  - Rational thought and action
  - Compassion and empathy
  - Courage and resilience
  - Scientific temper and creative imagination
  - Sound ethical moorings (i.e., anchorage) and values
- The education system is to be guided by the following value-based principles along with other principles:
  - Holistic development of each student
  - Multidisciplinary education ensures the integrity and unity of all knowledge
  - Ethics and human & constitutional values
  - Teacher is the heart of the learning process
  - A rootedness and pride in India
  - Education as a public service
- The vision of the policy is to instill among the learners a deep-rooted pride in being Indian, not only in thought but also in spirit, intellect, and deeds as well as to develop knowledge, skills, values, and dispositions that support responsible commitment to human rights, sustainable development & living and global well-being thereby reflecting a spirit of global citizenship. (Internationalization of education).

- The policy reiterates the concept of Vivekananda when it observes that education helps in the manifestation of perfection which is already within an individual. The other thrust areas are:
  - i. Focus on experiential learning
  - ii. Knowledge of India to include knowledge of ancient India and its contribution to modern India
  - iii. Students to be taught at a young age the importance of doing “What is right”?
  - iv. A logical framework to be provided for making ethical decision
  - v. Students to be made aware of cheating, violence, plagiarism, intellectual property rights, littering, tolerance, equality, and empathy
  - vi. Enabling learners to embrace moral/ ethical values in conducting their life, taking positions on ethical issues from multiple perspective, and using ethical practices in all works.
  - vii. Basic human and constitutional values to be inculcated are:

Values such as Seva, Ahimsa, Swachhata, satya, niskama karma, peace, sacrifice, tolerance, diversity, pluralism, righteous conduct, gender sensitivity, respect for elders, environment, helpfulness, Courtesy, patience, forgiveness, empathy,

compassion, patriotism, democratic outlook, integrity, responsibility, justice, liberty, equality, and fraternity, Preventive health, mental health, nutrition, personal & public hygiene, and damaging effect of Tobacco, alcohol, drugs have been envisaged in the NEP 2020.

- The policy expects most learned to become the teacher to pass on knowledge, skills and ethics.
- Professional standards for teachers by 2030.
- Professional standard-setting body (PSSB) under General Education Council (GEC) to be set up
- For holistic education- value-based education to be introduced for the development of humanistic, ethical, constitutional, and universal values of truth, righteous conduct (*Dharma*), peace (*Shanti*), love (*Prema*), non-violence (*Ahimsa*), scientific temper, citizenship values, life skills, lesson in *Seva/* service, community service programs
- Vocational education- entrepreneurship
- 360° assessment deals with multidimensional report card which includes the progress and uniqueness of each learner in the cognitive, affective, and psychomotor domains.

Thus, it can be concluded that the NEP 2020 seeks to evolve a system of education rooted in indigenous knowledge and values (Table-1).

**Table-1: Correspondence between Indian Knowledge System & Values and NEP–2020**

Thrust Areas in NEP- 2020	Indian Epistemology & Ethics	Source
Development of Good human being	<ul style="list-style-type: none"> <li>• <i>Shreya Marga</i></li> <li>• <i>Tyaga Marga</i></li> <li>• ‘No’ to <i>Preya Marga</i> of pleasure (<i>Bhoga Marga</i>)</li> </ul>	<i>Kathopanishad</i>
Holistic development	<b>Pancha Kosha</b> <ul style="list-style-type: none"> <li>• <i>Annamaya-kosha</i></li> <li>• <i>Pranamaya-kosha</i></li> <li>• <i>Manomaya-kosha</i></li> <li>• <i>Vijnanamaya-kosha</i></li> <li>• <i>Anandamaya-kosh</i></li> </ul>	<i>Taittiriya Upanishad</i>
	Integral Education (Physical, Vital, Mental, Psychic, Spiritual)	Sri Aurovindo
Unity of Knowledge “ <i>Om purnamidah purnamidam purnat purnamaduchyate Purnasya purnamadaya purnamevava shishyate</i> ”	Essential oneness of existence	<i>Ishavasya Upanishad</i>
	“ <i>Ekam Satya Vipra Bahudha Vadanti</i> ” “ <i>Ekam Brahma Dvitiya Nasti</i> ”	<i>Vedant</i>

(contd. on pg. 8)

(contd. from pg. 7)

Thrust Areas in NEP- 2020	Indian Epistemology & Ethics	Source
Conceptual clarity and Experiential Learning	<i>Shravana, Manana, Nidhidhyasana</i> Listening, Understanding and reflecting, practice and meditation	Vedanta Sara <i>Brihadāranyaka Upaniṣad</i>
Teacher as the heart of learning process	<ul style="list-style-type: none"> <li>• Illumined teacher</li> <li>• Realised sage</li> </ul>	<i>Kenopanishad</i>
	<ul style="list-style-type: none"> <li>• He knows who has studied under a preceptor.</li> <li>• He who dispels ignorance</li> </ul>	<i>Sruti</i>
Vocational skill and entrepreneurship	<i>Ajibika</i>	Basic Education of Gandhiji, Eight fold path of Buddha
Sustainable development	<i>Bhoota Yajna</i>	<i>Jainism</i>
Elimination of Cheating, violence, plagiarism, inequality, apathy	Concept of <i>Pancha Mahabrata</i> ( <i>Ahimsa, Satya, Asteya, Brahmacharya, Aparigraha</i> )	<i>Jainisim</i>
<i>Seva</i> (Service)	Trusteeship	M.K. Gandhi
	Aparigraha Earn with hundred hands and spend with thousand hands	<i>Buddhism</i> <i>Jainism</i>
	Service to mankind is service to God	Swami Vivekananda
<i>Ahimsa</i> (Non-violence)	Ahimsa in Thought, speech, action	<i>M. K. Gandhi, Jainism, Ashtanga Yoga (Patanjali)</i>
<i>Swachhata</i> (Cleanliness)	Internal & external Cleanliness	<i>Manusmriti</i> <i>Ashtanga Yoga (Patanjali)</i>
<i>Satya</i> (Truth)	Thought, speech, action <i>Satyam Vada, Dharmam Chara</i> <i>Satyameva Jayate</i>	<i>Srimad Bhagavad Gita</i>
<i>Niskama Karma</i>	<i>Karmanye Vadhikaraste Maa Phaleshu kadachana</i>	<i>Srimad Bhagavad Gita</i> (Verse 47 of chapter- 2)
Peace	Om Shantih , Shantih , Shantih	<i>Upanishad</i>
Sacrifice	<i>‘tena tyaktena bhunjitha Mā grdhaḥ kasya svid dhanam’</i> ‘By renunciation protect the Self and do not covet anybody’s wealth.’	<i>Īsopaniṣad, Vedas</i>
Tolerance	Titikhya ( <i>Shat Sampatti</i> )	<i>Vedanta</i>
Diversity	Forms are many but informing spirit is one	<i>Vedanta</i> <i>Jainism</i>
Pluralism	<i>Anekantavada</i>	<i>Jainism</i>
Dharma	Purushartha/ righteousness	<i>Srimad Bhagavad Gita</i>
	Dharmam Chara	<i>Veda</i>
Gender equality	Women considered as source of <i>Shakti</i>	<i>Indian scriptures</i>
Respect for elders	Pitru yajna/ Rishi Yajna (Pancha Yajna)	<i>Jainism</i>
Environment	Bhoota Yajna (Pancha Yajna)	<i>Jainism</i>
Helpfulness	<i>Sarva Jana Hitaya, Sarva Jana Sukhaya</i>	<i>Veda</i>

(contd. on pg. 9)

(contd. from pg. 8)

Thrust Areas in NEP- 2020	Indian Epistemology & Ethics	Source
Courtesy	<i>Sraddhavan Labhate Jnanam, Vidya Dadaati Vinayam</i>	<i>Srimad Bhagavad Gita</i>
Patience & Forgiveness	<i>Dhrti &amp; kshama (Concept of Dharma )</i>	<i>Manu Smriti</i>
Empathy		Buddhism
Compassion		R.N. Tagore
Patriotism		Subhas Bose, <i>Neo- Vedanta</i> , Vivekananda
Democratic outlook & Integrity		M.K. Gandhi, Indian Constitution
responsibility	Karma Yoga, fundamental duties	<i>Srimad Bhagavad Gita</i> , Indian constitution
Justice		Indian constitution
Liberty & Equality		<i>Srimad Bhagavad Gita</i> M.K. Gandhi, Indian Constitution
Fraternity	<i>Vasudhaiva Kutumbakam, Mad-atma Sarva-bhutatma</i>	Hinduism, Universal brotherhoodness, Indian constitution
Patience & Forgiveness	<i>Dhrti &amp; kshama (Concept of Dharma )</i>	<i>Manu Smriti</i>

### Challenges

There are many challenges that create barriers to practicing Indian Values and ethics.

- The present Indian education is sans religion.
- The personal contact between teachers and students is gradually declining because of the advent of ICT.
- There is a dearth of models at the tertiary level to inspire the students.
- Teachers are not familiar with ancient sources of wisdom.
- There is an increased attitude of materialism and consumerism prevalent in contemporary society.
- There is too much end/ outcome orientation in the educational practices and less orientation on 'means'/processes.
- There is a lack of enabling environment to practice values in higher education institutions.
- The evaluation system is inadequate with too much emphasis on objective-type questions- leaving no space for open-ended and value-based questions to elicit values, originality and creativity from students

- The main problem for man in general is that even if he knows what is good and what is evil, he fails to do good because of instincts.

*“Jaanaami dharmam na cha me pravrittithi, jaanaami adharmam na cha me nivrittithi tvayaa hrishiikesha hridisthitena yathaa niyuktosmi tathaa karomi”*

“I know what is right but I am not inclined towards doing the right thing,

I know what is wrong, but I cannot abstain from doing the wrong thing,

Oh Lord of the senses, you reside in my heart and I act as per the impulses of my heart.”

- Mahabharata

In conclusion, the following four moral dictums envisaged in Indian scripture which could be very relevant for the present educational set-up.

- Do Swadhyaya (Self- study) (स्वाध्याय करें)
- Be Your Own light (आत्मदीप भवः)
- Do Good and Be Good (अच्छा करो और अच्छा बनो)
- See yourself in others. (मदात्मा सर्वभूतात्मा)

## References and Readings

1. Chatterjee, S., and Datta, D., M. (1984). *An Introduction to Indian Philosophy*, University of Calcutta.
2. Chaube, S., P., and Chaube, A. (2008). *Foundations of Education*, Vikash Publishing House PVT LTD.
3. Chinmayananda, S. (2005). *Isavasya Upanisad*, Central Chinmaya Mission Trust.
4. Chinmayananda, S. (2016). *Kathopanisad*, Central Chinmaya Mission Trust.
5. Chinmayananda, S. (2017). *Taittiriya Upanisad*, Central Chinmaya Mission Trust.
6. Divyakirti, V. (2022). Introduction of Indian Philosophy from Vedas to Osho, December 24. [https://www.youtube.com/watch?v=J4sYkNBErU&list=PLpf9Lx9yhAxVvsbif\\_ZL5FJK7VkcfrnZK&index=4](https://www.youtube.com/watch?v=J4sYkNBErU&list=PLpf9Lx9yhAxVvsbif_ZL5FJK7VkcfrnZK&index=4)
7. Harshananda, S. (2000). *The Six Systems of Hindu Philosophy*, Ramakrishna Math.
8. India Foundation. (2022, March 2). *Ancient Indian Knowledge Systems and their Relevance Today- With an Emphasis on Arthasastra*. <https://indiafoundation.in/articles-and-commentaries/ancient-indian-knowledge-systems-and-their-relevance-today-with-an-emphasis-on-arthasastra/>
9. Ministry of Human Resource Development, Government of India. (n.d.). *National Education Policy 2020*. [https://www.education.gov.in/sites/upload\\_files/mhrd/files/NEP\\_Final\\_English\\_0.pdf](https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf)
10. National Council for Educational Research and Training (2023). *National Curriculum Framework for School Education 2023*. [https://ncert.nic.in/pdf/NCFSE-2023-August\\_2023.pdf](https://ncert.nic.in/pdf/NCFSE-2023-August_2023.pdf)
11. Sharma, C. (2016). *A Critical Survey of Indian Philosophy*, Motilal Banarsidass.
12. Sibananda, S., S. (2019). *Essence of Principal Upanishads*, The Divine Life Society.
13. Sinha, H., S. (2020). *Buddhist Philosophy \_ Revised & Detailed \_ Shad – Darsna*, June 29. [https://www.youtube.com/watch?v=\\_TeQSAbtXNI](https://www.youtube.com/watch?v=_TeQSAbtXNI)
14. Sinha, H., S. (2018). Introduction to Buddhist Philosophy, December 24. <https://www.youtube.com/watch?v=psU6Fd-F8CA>
15. Sinha, H., S. (2018). *JAIN PHILOSOPHY Brief Introduction*, December 14. [https://www.youtube.com/watch?v=RAk7IoTe\\_Nk&list=PLxYDMSdfTAGR7-ZtpZdzDNqF7fHg6vZT&index=4](https://www.youtube.com/watch?v=RAk7IoTe_Nk&list=PLxYDMSdfTAGR7-ZtpZdzDNqF7fHg6vZT&index=4)
16. Tripathy, P., K. (2019). *Yoga Prakash*, Artageeta Publication. □

## Edited Book

on

### *Realising United Nations Sustainable Development Goals through Higher Education Institutions*

By

*Dr (Mrs) Pankaj Mittal  
and*

*Dr Sistla Rama Devi Pani*

The Association of Indian Universities has come out with a new publication on the vital theme '*Realising United Nations Sustainable Development Goals through Higher Education Institutions*' this year 2024. AIU undertook several initiatives, like organising consultancies, debates, discussions, and Vice Chancellors Meets with experts from the United Nations, the Government, NITI Aayog, and Industries to deliberate extensively on the various issues regarding SDGs. AIU also gathered articles from experts and erudite scholars on the implementation of the SDGs. Each article in the Book is unique and deals with a wide range of issues involved with SDGs in the words and opinions of the authors. This Book covers a range of articles on the status of implementation and the role that Higher Education Institutions can play in the speedy implementation of all 17 Sustainable Development Goals (SDGs). It certainly acts as a reference guide for those who are stuck in the process of achieving this extremely inevitable Agenda 2030. It provides a roadmap for the government and the universities to act timely to achieve the 2030 agenda for sustainable development.

For further details contact the Editors on Email Id : [ramapani.universitynews@gmail.com](mailto:ramapani.universitynews@gmail.com)

# Contemporary Relevance of Swami Vivekananda's Thoughts on Education

Chinmoy Kumar Ghosh\*

Swami Vivekananda never taught at a school, college or university department. He was just an ordinary graduate. But he was a great teacher. The Sanskrit word 'Guru' for 'teacher' originates from 'Gu' and 'Ru'. The former indicates darkness and the latter its remover. Thus, etymologically the word 'Guru' means the one who removes darkness,<sup>(1)</sup> that is a torch bearer. Swami Vivekananda, in short Swamiji, was such a torch bearer. It is said that, a poor teacher tells, an average teacher explains, a good teacher demonstrates and a great teacher inspires. Swamiji indeed inspired millions of people cutting across the barriers of age, caste, creed, religion and nationality. Sister Nivedita remarks about the deliberations made by her Master, Swamiji, characterizing it as "inexhaustible flow of interpretation", and mentions further that, "He was by no means indifferent as to the minds he was addressing."<sup>(2)</sup> It was this unique 'Teacher' quality in him which had guided his thoughts on education.

He has been referred to as the educationist par excellence<sup>(3)</sup>. A preview of literature on his thoughts on education unfolds multiple dimensions of his journey as a spiritual leader, an educationist, a reformist and above all a teacher, the hallmark being the emphasis on his practice of *Vedanta*. He has *inter alia* advocated for a goal-oriented approach, and integration of aesthetics and cultural heritage of the country in the curricula. This article would in no way repeat the inputs provided by the available literature<sup>(4-21)</sup> which is quite enormous. Rather, the strategy of this article has been to pick up some key features of his thoughts and scholarship, which have been presented in the form of his sayings and messages, and to elaborate on them using real-life examples and thereby establishing that these are very much relevant even today, when the education system in our country is at the crossroads of complications of multiple dimensions.

\* Former Director, National Centre for Innovations in Distance Education, IGNOU, New Delhi – 110068. E-mail: contactckg@gmail.com

## Definition of 'Education' According to Swami Vivekananda

"Education is the Manifestation of the Perfection Already in Man".<sup>(22)</sup>

The above saying provides the cardinal definition of 'Education' given by Swamiji. The most crucial word here is 'manifestation', an abstract noun derived from the verb 'manifest'. It originates from the Latin word *manus*, 'hand' and *festus*, 'struck', thereby referring to the senses as something one can touch or 'strike' with one's 'hand'.<sup>(23)</sup> Perfection according to him is inherent. More than a hundred years after Swamiji made this epoch-making statement, UNESCO organized 1996, a Commission with the objective of providing necessary direction to education in the 21<sup>st</sup> Century, with the focal theme, 'Learning – The Treasure Within'.<sup>(24)</sup> It echoes the voice of Swamiji and it is significant that it puts more stress on the learner than the teacher. It recommended four pillars of 'Learning'- 'Learning to know', 'Learning to be', 'Learning to do' and 'Learning to Live Together'<sup>(25)</sup> and we shall establish that these are very much in tune with the thoughts of Swamiji. Now, let us substantiate Swamiji's definition with some real-life examples.

The wandering builders of Europe of the 13<sup>th</sup> and 14<sup>th</sup> centuries were a genre of intellectual aristocracy. They called themselves *freemasons*. Their skill and imagination were considered as mysteries, a secret gamut of knowledge, not perceptible within the conventional curricular framework. They have indeed created marvels like *Flying Buttresses*, *Rheims Cathedral*; *Palazzetto dello Sport, Rome*. Much after these constructions were made lot of mathematics related to architectural design has been linked with these structures, whereas the *freemasons* applied only their inherent knowledge.<sup>(26)</sup>

Michelangelo's 'Head of Brutus' is one of the priceless possessions of the Bargello Museum, Florence. While Michelangelo was making the carvings for his masterpiece, others were quarrying the marble for him. But Michelangelo who had started his sculpting career as a quarryman in Carrara, always felt that the hammers in his hand and that of his

fellows were searching for a stone that had already been there.<sup>(27)</sup>

Perfection arises out of sincere efforts and perseverance. If you chance to come across an image maker in *Kumartuli* in Kolkata giving final touches to the idols, you would wonder at times whether the brush is adding any paint or not. You and I as onlookers may not perceive that it is a part of the journey towards manifestation of the perfection of the image maker. The same happened with the young gymnast, Nadia Comaneci when she scored 'A Perfect 10' at the 1976 Montreal Olympics.<sup>(28)</sup> The perfection had been within her which got manifested by way of her persistent practice and hard work.

In Nadia's case, it was her discipline, perseverance, and sustained effort aided by adequate infrastructural facilities. However, manifestation of perfection does not always depend on the individual as other factors may come into play. When Virat Kohli plays a copybook cover drive, it is poetry in motion. But it does not happen with every such drive he executes. Some may result in catches. It means that perfection is within him but its manifestation depends on factors like proper reading of the direction, swing and bounce of the ball, shot selection, timing, field setting, etc. as in his case, his opponents are also in the process of having their perfection manifested.

There have been a number of cases of miraculous treatment of cancer by way of proper surgical intervention. It means that perfection can be achieved in the case of cancer surgery also. However, the end result may not always turn out to be positive. It implies that the state of perfection is within the team of surgeons, whereas its manifestation depends on several factors such as the stage of detection of the ailment, principal features of the physical condition of the patient and so on, notwithstanding the infrastructural facilities available at the hospital where the treatment takes place.

This holds good even for a quintessential learner. His journey through the stages of elementary, secondary and tertiary education is generally marked with stories of successes and pitfalls, but every aspect of it is intimately related to the manifestation of perfection within him, which gets interfered with by issues such as quality of teaching, the institutional environment, the family and the social milieu and so on.

## What is Knowledge

*"Knowledge is Inherent in Man. No Knowledge Comes from Outside; it is All Inside".<sup>(29)</sup>*

This aspect has been explained very elegantly by Swamiji himself using the example of the discovery of the 'Law of Gravitation' by Newton.<sup>(30)</sup> The law, in the form it is known to us today, had existed even before the proverbial apple fell on his head or when he was staring at the moon and realising that it falls towards the earth in the same manner as the apple does. The same is true of Einstein's special relativity, according to which space, time and mass are relative but the velocity of light is absolute.<sup>(31)</sup> These principles were all inherent and Einstein struck the right cord based on observation, experience and critical analysis.

'1729', which is called the Ramanujan Number, is quite interesting. It is the least among the numbers which can be expressed as the sum of two cubes of positive integers in two different ways:  $(10^3 + 9^3)$  and  $(12^3 + 1^3)$ . This property was inherent in the number, it was identified first by Srinivasa Ramanujan. This number has several other rare and strange properties.<sup>(32)</sup> So, this knowledge was not created by Ramanujan, nor did it come from outside, its unfolding was catalysed by him.

The above examples reflect a very significant thought of Swamiji related to the aspect of inherent knowledge:-

*"...no one can teach anybody. The teacher spoils everything by thinking that he is teaching. Thus, Vedanta says that within man is all knowledge – even in a boy it is so – and it requires only an awakening, and that much is the work of a teacher."<sup>(33)</sup>*

Traditionally in the Indian classrooms, the teacher remains focussed on the syllabus, which is essential from the point of view of facilitating the preparation of the students for their examination for which there are pressure from the guardians and the peer group as well. So, a teacher feels that he has to "teach" a lot, and in the process the inherent nature of the knowledge disseminated to the learner takes a back seat. In this connection, the first two sentences of the National Policy on Education 2020 (NEP 2020)<sup>(34)</sup> are worth quoting - *"Education is fundamental for achieving full human potential, developing an equitable and*

*just society, and promoting national development. Providing universal access to quality education is the key to India's continued ascent, and leadership on the global stage in terms of economic growth, social justice and equality, scientific advancement, national integration, and cultural preservation.*" In order to achieve these goals, there should be stress on "awakening" as advocated by Swamiji.

Having said about imparting of knowledge, let us see what Swamiji says about the most vital role of education.

### **Character Building through Education**

*"Education is not the amount of information that is put into your brain and runs riot there, undigested, all your life. We must have life-building, man-making, character-making assimilation of ideas".* <sup>(35)</sup>

To elaborate on this issue, let me cite an incident. Annual Sports at quite a well-known school was being organized at a rectangular ground of dimension, 110 m x 60 m. The tracks for 100 m race, the most popular event, were laid parallel to the longer side of the rectangle. The condition of the ground beyond 100 m was quite uneven with very little grass. A 100 m race does not really end at the finishing line. Due to inertia of motion, the sprinters normally keep running beyond 100m before they can stop. The same happened with the boys taking part at the race. They could not check their speed, so much so that most of them had fallen and got injured because of the poor underfoot conditions. It was an irony that the main organizer of the sports was a mathematics teacher. He might have taught Pythagoras' theorem several times at the classroom, but it did not occur to him that the 100 m tracks could have been laid along the diagonal of the rectangular ground. It would have given a good bit of cushion to the boys for checking their speed after crossing the finishing line.

The above example shows that we need to do proper justice to 'Learning to do' and it is reflective of the message of Swamiji as regards indigestion of the information stuffed in our brain. Information acquired by an individual is supposed to be imbibed and internalized by him so that it can be applied in real-life situations. If it does not happen, then the information becomes bookish and is hardly of any use. One needs to go beyond the textbooks to

transform the classroom-based lessons into life-building exercises.

Further, Swamiji advocates for education to be holistic, not just confined to the curriculum. It exactly corroborates the contents of Section 11 of the document of NEP 2020<sup>(36)</sup>. His ideas have been put into practice at the educational institutions run by following his ideals. In addition to their routine studies, the students are made to take part quite rigorously in physical education, cultural activities, beautification of the campus, and above all social work to nurture the feeling of '*Learning to live together*'. These are essential ingredients for skewing the dissemination of education towards man-making, life and character-building attributes.

### **The Skill of Questioning**

Let us again quote Swamiji -

*"The present system of education is all wrong. The mind is crammed with facts before it knows how to think".* <sup>(37)</sup>

In the previous section, we found that stuffing of too much of information does not serve the purpose of true learning. Moreover, it leads to cramming of the mind, creates prejudice and it becomes opaque to new ideas. It serves the purpose of securing marks at the examination but fails to develop the thinking faculty. The principal reason behind such a situation is too much emphasis on developing answering skills whereas hardly any importance is given towards development of questioning skills.

If we look into the lives of great scientists, we will find that all of them had questions. Albert Einstein as a child used to question "*Why the magnetic needle would always point in the same direction?*" <sup>(38)</sup> He would also ask, "*If I move in a vehicle with the same speed as that of another vehicle on a parallel track, it appears to become standstill. So, if I go on increasing my speed and at some stage attain the speed of light, will light become standstill?*"<sup>(39)</sup> One of his teachers at Luitpold Gymnasium, Munich told him that it was better for the class if he stayed out. <sup>(40)</sup> What treatment to a child who later came to be known as the '*Man of the Century*' on the basis of an opinion poll conducted by the iconic TIME magazine! The authoritarianism in this school created quite an adverse impact on his upbringing. According to his own words – "*the worst thing seems to be for a school principally to work with methods of fear, force, and artificial authority. Such*

*treatment destroys the healthy feelings, integrity, and self-confidence of the pupils. All that it produces is a servile helot.*"<sup>(41)</sup>

Sir C V Raman has questioned – “*Why is the ocean blue?*”<sup>(42)</sup> His search for answers to this and several other questions led to the discovery of the Raman Effect, for which he received Nobel Prize in 1930. Thomas Alva Edison did not have any formal education. He always used to challenge the assumptions and he maintained an open and unprejudiced approach to solutions of the problems. He felt that patience and perseverance always pay and nothing in science should be treated as final.<sup>(43)</sup> He had multiple patents in his name, conspicuous among them being gramophone and electric bulb. Isidor Rabi was a famous nuclear physicist who won the Nobel Prize in 1944. Whenever he returned home from school, his mother would ask, “*Son, have you asked a good question today?*”<sup>(44)</sup>

Spirit of inquiry is not the monopoly of scientists, teachers and students of science. It is a reflection of scientific temper which is duly enshrined in the Constitution of India (Clause 51A, Item (vi)) as the duty of a citizen. And Swamiji loved to question, and also to be questioned. Who can forget his direct and straightforward question to Sri Ramakrishna Paramhansa Dev - “*Have you seen God?*” The answer given in the affirmative by Sri Ramakrishna definitely impacted Swamiji, but he did not accept it easily. He went through a long journey of verifying his Master and could finally convince himself about the truth of his statement.

It is quite well known that the ever-growing tendency of rote learning among students is a bane in our education system. The guardians, teachers and all other stakeholders are well aware of it, but it continues almost unabated. This concern has been voiced quite intensely in the National Curriculum Framework on Science Teaching by the National Council for Educational Research and Training (2006)<sup>(45)</sup>, which is again a reflection on Swamiji’s thoughts on Education.

### **Nature of Education – Spiritual, Secular and National**

Swamiji has remarked:-

*“We must have the whole education of our country, spiritual and secular, in our own hands, and it must be on national lines, through national methods as far as practical.”*<sup>(46)</sup>

Spirituality is the prime strength of our country and secularism is the fabric which binds all of us. We believe in the saying of the Upanishad, “*Vasudhaiva Kutumbakam*”, which means that the whole world is one single family. Such a feeling has been very vividly revealed through *Bharat-tirtha*<sup>(47)</sup>, a famous poem by Tagore. In a very subtle way, it upholds the spirit of tolerance which is deeply impregnated in Indian culture and traditions. It visualizes India as a pilgrimage for people of different races, castes, creeds and religion who are all embraced by this great country in the process of its demographic expansion, as poignantly remarked by Firaq Gorakhpuri – “*Kafila Baste Rahe, Hindustan Banta Gaya.*”<sup>(48)</sup>

The focal theme of Swamiji’s addresses at the Parliament of Religions was that all religions are true. We indeed find that India, though predominantly Hindu, has the second largest population of Muslim in the world, with more Muslims than in Pakistan, it is home to over 50 million of Christians, that is more than what we have in Italy and France combined, a large number of Buddhists, Jains, and the largest population of Zoroastrians (also called the Parsees). Moreover, large numbers of Israeli migrants have settled in India without facing any form of anti-Semitism.

Swamiji’s message reminds us that such ethos of reverence towards unity in diversity should be integral parts of our educational upbringing. The educational institutions under the Ramakrishna Mission, which follow the ideals of Swamiji organize activities to commemorate birthdays not only of Sri Ramakrishna Dev, The Holy Mother Sarada Devi and Swamiji, but also of all fellow disciples of Swamiji, and most importantly of Prophet Mohammad, Jesus Christ, Buddha, Guru Nanak, Mahavira and so on. Swamiji had even welcomed the merger of thought processes with Western ideas, but he wanted to drive the vehicle of education to ensure that our national spirit does not become subservient to such internationalization.

In the context of the secular fabric of the country, the Men’s Cricket World Cup 2011 winning team of India presents quite a remarkable illustration - we find that Dhoni, the captain, is a Hindu, the main strike bowlers, Zaheer Khan and Harbhajan Singh are a Muslim and a Sikh and the team was coached by Gary Kirsten, a Christian. *If we can play together, we can indeed live together.* As Indians, we deserve

to take pride as such a situation is not very common the world over. For example, apartheid as a policy, stands abolished in South Africa with effect from 1991, whereas the composition of their cricket team, even three decades after that, is less favorably skewed towards colored players.

Swamiji had further remarked that –

*“We have had a negative education all along from our boyhood. We have only learnt that we are nobodies. Seldom are we given to understand that great men were ever born in our country”.* <sup>(49)</sup>

Swamiji was a great patriot. He took immense pride in the heritage and tradition of the country and in particular the deeds of our countrymen. But, do we bother about our glorious past? A student would perhaps not know that the formula for obtaining the solution of a quadratic equation was derived first by Sridharacharya. The ‘*God Particle*’ which the scientists at CERN claimed to have detected on the 4<sup>th</sup> July, 2012, and which provides an explanation of the creation of the universe, by way of giving the particles their masses, is called ‘*Higgs Boson*’. While Higgs refers to Peter Higgs, an Edinburgh University professor, the word ‘*Boson*’ originates from the name of the famous physicist Prof. Satyendra Nath Bose, which our students might not know. Today’s students have a tendency to look towards the West. While there is nothing wrong with such an attitude, it is expected that they should not forget about the phenomenal contribution of the Indians towards the overall body of existing knowledge and human civilization.

### **Education for being Self-reliant**

Education should make one self-reliant. Swamiji had said -

*“Educate our people, so that they may be able to solve their own problems. Until that is done, all these ideal reforms will remain ideals only”.* <sup>(50)</sup>

Swamiji had tremendous faith in human beings. He wanted each one to be him/herself in the truest sense of the term. He was not like that doctor who treats as per the symptoms of the patients. Rather he would go deep into the problem, diagnose the disease and then prescribe the medicine. It has tremendous relevance regarding his spirit behind educating the women. He wanted the women to be responsible for their well-being, he was not at all in favour of others

worrying about issues pertaining to them like widow remarriage, child marriage, etc. He said,

*“Educate your women first and leave them to themselves; then they will tell you what reforms are necessary for them”.* <sup>(51)</sup>

The above statement testifies to the visionary outlook of Swamiji. Gone are the days when it was quite strongly felt that women are not physically and mentally fit like men and were not at par with their male counterparts in respect of shouldering prime responsibilities. Our country has seen a women Prime Minister who has served for more than fifteen years. It has also seen two-woman Presidents. There are umpteen number of other examples to establish that the women of the country today stand very adequately empowered in every front, such as sports, familial, socio-cultural, political, economic and so on and such a scenario has contributed significantly to a large extent towards poverty alleviation, removal of illiteracy and so on.

Self-reliance is a virtue, which cannot be achieved by depending solely on textbooks. We need to go beyond the textbooks to society and the greater world, and develop the habit of intensely interacting with nature, *which can never be cheated*. These are attitudes that form the facets of *Experiential Learning (EL)*, on which tremendous emphasis has been given in the document of NEP 2020. <sup>(52)</sup>

Let us see what Swamiji says about EL -

*“We may read books, hear lectures, and talk miles, but the experience is the one teacher; the one eye-opener. It is best as it is. We learn, through smiles and tears we learn”.* <sup>(53)</sup>

Swamiji even went to the extent of saying, *“Experience is the only teacher we have”.* <sup>(54)</sup> Experiential learning is supposed to be the principal feature of ‘*Learning to know*’. It is indeed an interesting journey of learning through discovery, an opportunity hardly provided to the students. A teacher generally explains ‘*Water Cycle*’ by drawing the familiar diagram given in the textbook. But is it necessary that the learners have to know about the cycle in a day? Why can’t the students, at least from the rural sector, be shown on a summer afternoon that a pond is almost dry and made to wonder wherefrom the rains come to replenish it during monsoon? Experiential learning can do wonders. The laboratories at an academic

institution are the prolific arenas for practising EL, but it is unfortunate that their importance is at present on the wane. The main reason is once again the examination system, where practical in laboratory-based subjects like Physics, Chemistry and Life Sciences has become of secondary importance. In the existing system, a student can excel in Engineering and Medical Entrance Examination by appearing **only** in theoretical papers. The science subjects are gradually getting relegated to theory-based disciplines. One expects that following the recommendations of NEP 2020, justice would be made to the implementation of EL, both in letter as well as spirit.

Before drawing a conclusion, it would be worth citing an example, which establishes the congruency of thought between Swamiji and Charles Chaplin, a stalwart in a domain widely departed from that of Swamiji. We know that the films of Chaplin have stood the test of time and a strong reason behind it is that in most of the films one gets to see a very poignant combination of *smiles and tears*. He has himself attributed this characteristic to *learning through experience*. Let us have its taste through his own words –

*“At the end of our street was a slaughterhouse, and sheep would pass our house on their way to be butchered. I remember one escaped and ran down the street to the amusement of onlookers. Some tried to grab it and others tripped over themselves. I had giggled with delight at its lambent capering and panic, it seemed so comic. But when it was caught and carried back into the slaughterhouse, the reality of the tragedy came over me and I ran indoors, screaming and weeping to Mother: “They are going to kill it! They are going to kill it!” That stark, spring afternoon and that comedy chase stayed with me for days; and I wonder if that episode did not establish the premise of my future films – the combination of the tragic and the comic.”* <sup>(55)</sup>

## Conclusion

Swamiji left for his heavenly abode on the 4<sup>th</sup> of July, 1902. Thereafter we have come a long way. The country has got its political independence. As far as the education scenario is concerned, the British had left their legacy. But we have taken various steps to bring in the Indian ethos in our education scenario. There has been six Education Commissions covering the different facets of secondary and

tertiary education. The National Policy of Education (1986) followed by the Programme of Action (1992); the National Curriculum Framework (2005), and of course the NEP 2020 have added important dimensions to our education scenario. An interesting phenomenon of the last four decades is the emergence of the Open and Distance Learning System parallel to the traditional system. It has helped in increasing the outreach of education to the remote corners of the country. A testimony to the success of the education system is India’s emergence as the second largest manpower in the world in terms of scientific research. A large percentage of ICT related positions the world over are occupied by Indians. Swami Vivekananda would have been proud to see these achievements. The right to education for everyone spelled out in our Constitution had been a dream of Swamiji. Notwithstanding these achievements, we still have a long way to go if we aim towards fulfilling Swamiji’s vision in the right earnest.

Swamiji had said –

*“If you have assimilated five ideas and made them your life and character, you have more education than any man who has got by heart a whole library...”* <sup>(56)</sup>

Let us follow Swamiji and assimilate five ideas. We have mentioned earlier that the UNESCO Commission on the theme, *Learning – The Treasure Within* had effectively revisited Swamiji’s thoughts on education. It recommended the four pillars of learning – ‘*Learning to know*’, ‘*Learning to be*’, ‘*Learning to do*’ and ‘*Learning to Live Together*’ Let these four pillars of ‘*Learning*’ be four of the five ideas to be assimilated.

‘*Learning to know*’ should inspire a student to have holistic knowledge which essentially means the combination of both, ‘*Apara*’ and ‘*Para*’ *Vidya*, as spelled out in the *Mundaka Upanishad* <sup>(57)</sup>. The former refers to the study of languages, history, geography, science, mathematics, etc. whereas the latter is the knowledge about the self, that is the supreme reality that transcends space, time and causality. Further, a student should be very strongly involved in experiential learning.

Following ‘*Learning to be*’, we should strive to be ourselves. We should not be committing theft in our realm of thought. The author has experienced that during a high-profile convention on ‘*Education*

for All' tea was being served to the participants by a child whose age was hardly ten years. It shows that we have not learned *to be*. The training required for the inculcation of the desired virtue calls for nurturing of the individuals from the very childhood by teachers by way of playing the role of mentors targeting some kind of revival of the teacher-taught relationship in lines of the *Gurukul* system or at least a workable approximation of it, compatible with the present psychosocial circumstances. NEP 2020 gives adequate hints about the wishful emerging scenario in this regard by making strong recommendations about Early Childhood Care and Education, the creation of *Anganwadis*, Pre-schools, Day Care Centres and so on, which raises hopes about giving shape to man-making and character-building education advocated by Swami Vivekananda.

We have to do justice to '*Learning to do*' by making the student capable of applying the acquired knowledge in real-life situations. This calls for putting a lot of stress on practical-based learning which is experiential. Moreover, the performance of a student should be subject to very scientific evaluation which would be a judicious combination of formative and summative components with essential ingredients of the project and internship.

'*Learning to Live Together*' is extremely crucial in the context of our country where we get to see extreme ends of inequity in the form of existence of institutions like IIMs, IITs, Tata Institute of Fundamental Research, Indian Institute of Science, etc. on one hand, which give us international pride and on the other hand the elementary schools in remote villages where water will squeeze through the roof of the buildings during monsoon. Further, the digital divide between the urban and rural sectors is getting accentuated. Swamiji had strongly advocated that those who have proper educational opportunities should get inculcated in the spirit of sparing some efforts and time for those who got deprived of the facilities<sup>(58)</sup> - a service orientation, practiced to a reasonable extent at the institutions run by following the ideals of Swamiji.

The fifth and last idea should be to make the entire education system learner-centric. The planning of education should be demand-driven based on the needs of the learner. The *Guru* of Swamiji, Sri Ramakrishna Dev's dictum of *Jaar Pete Jaa Shoy* (To deliver in accordance with the capacity of the

receiver), mentioned at several places of *Ramakrishna Kathamrita*<sup>(59)</sup> (the English translation of which is known as *The Gospel of Sri Ramakrishna*) becomes extremely relevant in this context. Proper assessment of the aptitude of the student and his needs should be made before the process of dissemination of knowledge begins. Elementary education should be everybody's right. Thereafter, polarisation into different streams, one of which should essentially be skill-based vocational education, be operationalised in the right perspective.

Each of the above five ideas finds a place in the document of NEP- 2020, thus bearing testimony to the contemporary relevance of Swamiji's thoughts on Education.

Let me conclude by making reference to an Indian ethos in management. *Pitamaha Bhishma* before leaving for his heavenly abode was talking to the *Pandavas*, in particular *Yudhishtira* about the strategy of post-war governance of *Hastinapur*. What he said can be summarised in these following words. '*Not to resist, not to desist, but to persist – not to deny, not to defy, but to define*'<sup>(60)</sup>. Swamiji through his life and works, has been an embodiment of this message. Let our approach towards educating the future generation be a *persistent* journey in duly *defining* the need of the learner.

## References and Readings

1. Nikhileswarananda, Swami (2003). *Teacher as a Torch Bearer of Change*, Ahmedabad Management Association, Ahmedabad, P 1.
2. Nivedita, Sister (1910). *The Master as I Saw Him*, Udbodhan Office, Kolkata, P 48.
3. Prabhananda. Swami, (2008). *Swami Vivekananda - The Educationist Par Excellence in Walia Kiran – A Compilation: My Idea of Education by Swami Vivekananda*, Advaita Ashrama, Kolkata, P 9-33.
4. Yatiswarananda, Swami (2008). *Swami Vivekananda on Education*, in *Walia Kiran – A Compilation: My Idea of Education by Swami Vivekananda*, Advaita Ashrama, Kolkata, P 34-45.
5. Mukhopadhyay, Shantilal, (1977). *Swami Vivekanander Shikshachinta in Chintanayak Vivekananda*, Ramakrishna Mission Institute of Culture, Kolkata, P 519 – 28.
6. Dasgupta. Subodhranjan, (1977). *Swami Vivekanander Vidyanchetana in Chintanayak Vivekananda*, Ramakrishna Mission Institute of Culture, Kolkata, P 469 – 70.

7. Basu, Sankariprasad (2005). *Prasango Shivagyane Jivaseva in Swami Vivekananda: Natun Tathyo Natun Alo*, Ananda Publishers Pvt. Ltd, Kolkata, P 325, 331.
8. Prabuddhaprana, Pravrajika, (1994). *Swamijir Shikshaye Udbuddha Vedantapracharbrati American Nari* in Pravrajika Vedantaprana (Ed), *Mahima Tabo Udvasito*, Sri Sarada Math, Dakshineswar, P 522 – 24.
9. Pal, Robin (1994). *Swamijir Adhyayaner Jagat* in Pravrajika Vedantaprana (Ed), *Mahima Tabo Udvasito*, Sri Sarada Math, Dakshineswar, P 398 – 405.
10. Basu, Nemaisadhan, (1994). *Swami Vivekananda-Prashna O Prasango* in Pravrajika Vedantaprana (Ed), *Mahima Tabo Udvasito*, Sri Sarada Math, Dakshineswar, P 341 – 44.
11. *The Parliament of Religions* (1981). in *The Life of Swami Vivekananda*, by *His Eastern and Western Disciples*, Vol. I, Advaita Ashrama, Kolkata, P 413 – 39.
12. Chidrupananda, Swami (2010). *Swami Vivekananda and Indian Renaissance*, in *Swami Lokeshwarananda's Eternal Wisdom of India – A Compilation*, P 405 – 09.
13. Ibid. P 443 – 50.
14. Pani, S., P, Pattnaik, S., K., (2006). *Educational Thought of Vivekananda in Vivekananda Aurobindo and Gandhi on Education*, Anmol Publications Pvt. Ltd., New Delhi, P 43-93.
15. Majumdar, R.,C., (1965), *Swamiji's Ideal of Reforms in Swami Vivekananda: A Historical Review*, Advaita Ashrama, Kolkata, P 114 - 20
16. Chetanananda, Swami, (1997). *God Lived with Them*, Advaita Ashrama, Kolkata, P 52 - 57
17. Bhajanananda, Swami (2011). *Philosophical Ideas of Sri Ramakrishna and Swami Vivekananda*, The Cultural Heritage of India, Vol VIII, Ramakrishna Mission Institute of Culture, Kolkata, P 1162 – 98.
18. Chakraborty, Shib Sankar (2011). *Swami Vivekananda on Rural Development in India*, The Cultural Heritage of India, Vol III, Ramakrishna Mission Institute of Culture, Kolkata, P 1214 – 34.
19. Gupta, Bharat Bhushan, (2006). *India Through the Ages*, Niyogi Books, New Delhi, P 317 – 22.
20. Nehru, Jawaharlal (1946). *The Discovery of India*, Oxford University Press, P 187 - 88, 336 – 39.
21. Jitatmananda, Swami (1998). *Swami Vivekananda: Prophet and Pathfinder*, Sri Ramakrishna Ashrama, Rajkot, P 203 – 22.
22. Swami, Vivekananda in *Complete Works of Swami Vivekananda* (Henceforth CW) Vol 4. P 358.
23. Funk, Wilfred (2001). *Word Origin and Their Romantic Stories*, Goyal Publishers & Distributors (P) Ltd, New Delhi, P 354 – 55.
24. <http://www.educationforallindia.com/page80html> accessed on September 14, 2024
25. Delor, Jacques (1996). *Learning: The Treasure Within* (Paris: UNESCO); See also 'Education: The Necessary Utopia' <http://www.unesco.org/delors/utopia.html> accessed on September 12, 2024
26. Bronowski, J, (1973). *The Ascent of Man*, British Broadcasting Corporation, P 110-112.
27. Ibid P 113-115.
28. <https://sportstar.thehindu.com/olympics/tokyo-olympics/nadia-comaneci-gymnast-perfect-10-olympic-games-montreal-1976-belo-karolyi-moscow/article35506058.ece>, last accessed on September 12, 2024.
29. CW. 1.28.
30. Ibid.
31. Good, R.,H, (1974). *Basic Concepts of Relativity*, Affiliated East-West Press Pvt. Ltd, New Delhi.
32. Ghosh, C.,K., (2012), *The Ramanujan Number:1729*, DREAM 2047, Vigyan Prasar, Vol.14 No.7, P 27.
33. C.,W. 5.366.
34. Document of National Education Policy 2020, [https://www.education.gov.in/sites/upload\\_files/mhrd/files/NEP\\_Final\\_English\\_0.pdf](https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf), last accessed on 19<sup>th</sup> July, 2023
35. CW. 3.302.
36. (34) NEP 2020, Op. Cit.
37. CW. 8.208.
38. Bernstein, Jeremy (1996). *Albert Einstein and the Frontiers of Physics*, Oxford University Press, P 22.
39. Brennan, Richard P, (1997). *Heisenberg Probably Slept Here: The Lives, Times, and Ideas of the Great Physicists of the 20<sup>th</sup> Century*, John Wiley and Sons, P58.
40. Pais, Abraham (1982). 'Subtle is the Lord...' *The Science and the Life of Albert Einstein*, Oxford University Press, P 88.
41. Clark, Ronald W, (1971). *Einstein: The Life and Times*, Avon Books, An Imprint of Harper Collins Publishers, New York, P 31.
42. <https://www.nobelprize.org/prizes/physics/1930/raman/biographical>, last accessed on September 14, 2024
43. *Biography of Thomas Edison*: <http://inventors.about.com/od/estartinventors/a/Edison-Bio.htm> accessed on September 14, 2024
44. Keeley, Stuart M. (2000). Ali Rahan, Gebing Tracy, 'Beyond the Sponge Model: Encouraging Students' Questioning Skill

- in *Abnormal Psychology*, *Handbook of Demonstrations and Activities in the Teaching of Psychology*, Volume 3, ed. Ware Mark E and Johnson David E, Lawrence Erlbaum, New Jersey, P 92.
45. Document of the National Focus Group on Science Teaching by NCERT, (2006), Retrieved from <http://14.139.60.153/handle/123456789/229>
  46. (35) Op. Cit
  47. Tagore, Rabindranath (2004). *Bharat-Tirtha* from *Swadesh*, *Geetanjali* in *Geetabitan*, Deep Prakashan, Kolkata, P 178.
  48. <https://timesofindia.indiatimes.com/readersblog/ramblings/communal-harmony-10420/>, last accessed on September 14, 2024.
  49. CW. 5.332.
  50. CW. 5.215.
  51. CW. 6.115.
  52. (34) NEP 2020. Op. Cit.
  53. CW. 8.492-3.
  54. CW. 1.185.
  55. Chaplin Charles, (1977), *My Autobiography*, Penguin Books, P 40.
  56. CW. 3.299.
  57. <https://egyankosh.ac.in/bitstream/123456789/37939/1/Unit-2.pdf>, last accessed on September 14, 2024
  58. CW. 8.329-30.
  59. Gupta, Mahendranath (1996-97). *Ramakrishna Kathamrita – A Compilation*, Udbodhan Karyalaya, Combined Vol 1 & 2; P. 19, 148, 489, 554, 577, 627, 923, 1077, 1123.
  60. <https://bhagavatambybraja.wordpress.com/category/canto-1/1-09-final-words-of-grandfather-bhishma/>, accessed on September 13, 2024. □

## UNIVERSITIES HANDBOOK – 35<sup>th</sup> EDITION (2024)

(Set of Four Volumes): (ISBN 81-7520-164-9)

**PRICE: Rs. 18000/- (+ Postage/Courier Charge Rs. 1250/-)**

(10% Discount for Universities / Colleges / Institutions &  
20% Trade Discount for Publishers / Booksellers on MRP)

The 35<sup>th</sup> Edition of the Universities Handbook (2024) is a compendium which contains information of 969 Indian Universities and 16 Associate Member Universities from countries like Bangladesh, Thailand; Nepal, Malaysia, Bhutan, Kazakhstan, Mauritius, Russia, Singapore, Zambia, Germany, USA and Uganda.

The Handbook provides information relating to : Courses of Studies; Minimum Requirements for admission; duration and the subjects of study for each course; Library and Research Facilities; Scholarship and Fellowships; Academic year – date for admission and the approximate dates of examinations; Names of Faculties; Deans of Faculties, Names of Professors and Readers/Associate Professors with their specialization (department-wise); Staff, Officers and Name of Affiliated Constituent Colleges, Heads of Postgraduate Departments in the Colleges, etc.

The Handbook also includes a synopsis of the higher education system of the country and information on the structure of higher education, the categories of academic institutions, the coordinating bodies operating in the domain of higher education and other related issues.

The payable amount is required to be remitted **in advance** and the proof of payment / NEFT / **UTR Number with date and amount** may be communicated IMMEDIATELY BY E-MAIL for linking and crediting of the same against the respective Order.

- **The Handbook will be available from the sales counter of this office on payment through NEFT/RTGS/ Net Banking / UPI / Demand Draft / Pay Order etc. For collecting the UHB, each order must accompany an official letter with the payment instrument / transaction details.**

Please send Pre-paid Orders to:

\_\_\_\_\_  
**Publication & Sales Division**  
**ASSOCIATION OF INDIAN UNIVERSITIES**  
**16, Comrade Indrajit Gupta Marg, New Delhi 110 002**  
**Phones: 23230059/Extn. 208, Direct Line: 011 23213481, Email: [publicationsales@aiu.ac.in](mailto:publicationsales@aiu.ac.in)**

Opinions expressed in the articles published in the University News are those of the contributors and do not necessarily reflect the views and policies of the Association.

# ***Ayodhya: A Sustainable Administrative Management Model for Aspiring Bharat***

**B Bhargava Teja\***

*Ayodhya*, as a sustainable Ikshvakula kingdom, in the context of historical and geographical context, often refers to an ideal society and governance system. Various aspects of ‘Ram Rajya’ are investigated with a view to studying the practices, institutions and societal norms, that created a foundation for a flourishing and harmonious living in Ayodhya Kingdom. Dharma is the core principle that is found in every aspect of administrative management which created an ideal society that was resilient to various changes in values, circumstances, and of the ethical framework. The concept of Aspiring Bharat is contemplated, as an innovative administration that prioritizes ethical considerations in its operations and also integrates ideal principles into its core administrative management practices. Various scriptural references of Ramayana, from different Chapters of the epic Ramayana and relevant verses that correspond to modern concepts, are codified, analysed and presented during the present studies.

*The relationships of values, persons, and people for developing Aspiring Bharat is designed and developed.*

*The etymology of the Ayodhya which has roots in Sanskrit implies the meaning, Yuddha na sakhiya, which gives the meaning, unconquerable. As the capital of the Kosala Kingdom, it was an influential political and cultural center in ancient India. The kingdom, ruled by the Ikshvaku dynasty, Ayodhya is often idealized as the embodiment of “Ram Rajya,” a concept that represents to the adherence to dharma, an ideal, and just governance system, by ethical leadership, social harmony, and prosperity. The Kingdom is considered the epitome of Dharma in various aspects of life and society that is characterized by justice, compassion, sustainability, with a shared commitment to ethical principles.*

\* Chief Management Consultant, Shris Infotech, P. #. 809, Rd. #. 41, Jubilee Hills, Hyderabad – 33. E-mail: bhargava\_bt@yahoo.com

*The reign of Rama is most famously associated with the Ramayana, an ancient Indian epic attributed to the sage Valmiki. The interaction between Sage Valmiki and Narada is pivotal in laying the groundwork for the epic Ramayana and provides inspiration for the composition of the Ramayana. The depiction of Ayodhya as a Sustainable Administrative Management Model is primarily associated with the reign of King Sri Rama, who is portrayed and personified as characterized by righteous and virtuous conduct, who embodies it in its entirety. Ramayana introduces the theme of Dharma by personifying Sri Rama which provides a comprehensive framework for ethical living and moral conduct by saying;*

रामो विग्रहवान् धर्मस्साधुस्सत्यपराक्रमः ।

राजा सर्वस्य लोकस्य देवानां मघवानिव ॥

*raamo vighrahavaan dharmaH saadhuH satya  
paraakramaH |*

*raajaa sarvasya lokasya devaanaam iva vaasavaH ||*

(Ramayana – 3-37-13)

*“Rama is the embodiment of righteousness, he is an equable person with truthfulness as his valour, and as with Indra to all gods he is the king of entire world.*

The virtues of Sri Rama, are commendable with his qualities that have built ideal Ayodhya. These virtues of Sri Rama are found in the first chapter of Bala Kaanda along with qualities how He has set the standards for human excellence. Corresponding verses relating to unwavering devotion to dharma & compassion for all living with standards of human excellence are presented in Table 1 (a) and (b).

An ideal model of Rama Rajya is found to be society of all times. Ethical practices of sustainable administration aiming at administrative operations of the well-being of the People, the Nature, and the Society — the three pillars of sustainability are analysed from the different chapters of Ramayana and presented in the following sections [Bhargava Teja, 2023-a].

**Table 1(a): Virtues of Sri Rama**

#	Sanskrit	Transliteration	English Translation
1.	गुणवान्	<i>guṇavāna</i>	virtuous person
2.	वीर्यवान्	<i>vīryavāna</i>	vigorous person
3.	धर्मज्ञः	<i>dharmajñaḥ</i>	conscientious
4.	कृतज्ञः	<i>kr̥tajñaḥ</i>	one who is mindful of good deeds done to him
5.	सत्यवाक्यः	<i>satyavākyaḥ</i>	speaker of truth
6.	हृद्ब्रतः	<i>hṛdbrataḥ</i>	determined in his deed
7.	चारित्र्येण युक्तः	<i>cāritreṇa yuktaḥ</i>	appropriate in disposition
8.	सर्वभूतेषु हितः	<i>sarvabhūteṣu hitaḥ</i>	interested in welfare of all beings
9.	विद्वान्	<i>vidvāna</i>	an adept one
10.	समर्थः	<i>sarmathaḥ</i>	an able one
11.	एकप्रियदर्शनः	<i>ekapriyadarśanaḥ</i>	uniquely pleasant to look at
12.	आत्मवान्	<i>ātmavān</i>	self-composed
13.	जितक्रोधः	<i>jītakrodhaḥ</i>	one with controlled ire
14.	द्युतिमान्	<i>dyutimān</i>	brilliant one
15.	अनसूयकः	<i>anasūyakaḥ</i>	not jealous

**Table 1 (b): Standards of Human Excellence**

#	Sanskrit	Transliteration	English Translation
1	गाम्भीर्यं समुद्रः	<i>gāmbhīrya samudraḥ</i>	Ocean like Profundity
2	धैर्येण हिमवान्	<i>dhairyaṃṇa himavān</i>	Himalayas like Firmness/ Fortitude
3	वीर्यं विष्णुना सहस्रः	<i>vīrya viṣṇunā sahaśaḥ</i>	Vishnu like Valor
4	सोमवत् प्रियदर्शनः	<i>somavat priyadarśanaḥ</i>	Moon like Pleasantness
5	क्रोधे कालाग्निसहस्रः	<i>krodhe kālāgnisahaśaḥ</i>	Deadly fire like ANGER
6	क्षमया पृथ्वीसः	<i>kṣamayā pṛthvīsamaḥ</i>	Earth like Patience
7	त्यागे धनदेन समः	<i>tyāge dhanadena samaḥ</i>	Kubera [God of Wealth] like Charity
8	सत्ये अपरः धर्मः	<i>satye aparāḥ dharmāḥ</i>	Dharma like Truth

## Elements of Ayodhya Administrative Management

Administrative management is a structured management approach [Fayol, Henry. 1949, and Drucker, Peter. 1975] involving people and processes. Administration is a macro function that sets the vision and strategy at high-level decision making while its management is a micro function [Bhargava Teja, B. 2023-b], ensures that these plans are effectively translated into actionable tasks whereas management is a specialty in dealing with human beings and human relationships (Stoner, James., et. al., 2006), to reach organizational goals by using all available resources. Management is perceived as the art of getting work done by the people, (Koontz, H. and O'Donnell, C., 1955), through formally organized groups that facilitate the performance of work in the most professional way.

The salient features of administrative management are studied from different verses of *Ayodhya Kanda* which are classified into administrative and management aspects and presented in the Table 2a. However, a few verses that are strikingly significant are discussed as follows;

First and foremost, it is important to ensure the payment of the wages to the administrator as per the schedule otherwise servants become corrupt as declared in the following verse.

*kaala atikramane hy eva bhakta vetanayor bhritaah bhartuh kupyanti dushyanti so anarthah sumahaan smritah*  
(Ramayana – 2-100-33)

“When there is delay in giving bread and wages, the servants become incensed against their master and become corrupt; and that is said to be a great unfortunate occurrence.”

While selected administration preference has to be given to the domiciled person who is knowledgeable and able to maintain confidentiality. Further, he should be capable of soliciting advice from wise and knowledgeable people. These aspects are discussed in the following verses.

*kaccij jaanapado vidvaan dakshinah pratibhaanavaan*  
*yathaa ukta vaadii duutah te krito bharata panditah*  
(Ramayana – 2-100-35)

“I hope that a knowledgeable man, living in your own country, a wise man a skilled person endowed with presence of mind and the one who knows how to speak to the point, is selected as an ambassador by you.”

Care needs to be taken not to implicate persons with integrity, and who are noble and honest, without following the rule of law such as conducting a proper inquiry, and its essence is summarized in the following verse.

*kaccid aaryo vishuddha aatmaa kshaaritah cora karmanaa  
aprishtah shaastra kushalair na lobhaad badhyate  
shucih* (Ramayana – 2-100-56)

“If one of noble work, despite his honesty and integrity, is falsely implicated of some offence, I hope he is not killed impatiently, without proper enquiry by those well-versed in law-books.”

Collecting and monitoring the information discreetly (of their secret efforts) from their own side and enemies side is denoted in the following verse.

*kaccidaṣṭādaśānyeṣu svapakṣe daśa pañca ca |  
tribhistribhiravijñātairvetsi tīrthāni cārakaiḥ ||*  
(Ramayana – 2-100-36)

I hope you collect information intelligently through spies with three of them closely watching each of the eighteen officials of the enemy’s side and fifteen on your side.

Further, the limbs of the state, objectives of the human pursuits, and branches of learning along with evils and fortification are identified from the verse 68 verses.

*dashapamchachaturvargaan saptavargam cha  
tattvatah  
astavargam trivargam cha vidyaastisrashcha  
raaghava* (Ramayana – 2-100-68)

Oh! Bharata, having understood the true nature of the ten evils; the five kinds of fortifications; the four expedients; the seven limbs of state; the eight evils; the three objects of human pursuit; the three branches of learning;

Extending the discussion to verse 69 regarding subjugation of the senses, the six strategic expedients; adversity brought about by divine agencies; and by

human agencies; along with types of monarchs is declared as;

*indriyāṇām jayaṃ buddhyā śāḍgunyaṃ  
daivamānuṣam |  
kr̥tyaṃ viṃśativargaṃ ca tathā prakṛtimaṇḍalam ||*  
(Ramayana – 2-100-69)

- subjugation of the senses, the six strategic expedients; adversity brought about by divine agencies; and by human agencies; the twenty types of monarchs; and the entire population of the kingdom,

The detailed summary of 36, 68, 69 verses dealing with the duties of the king and management expedients are classified, and presented in the Table 2b. It is interesting to note that a detailed appraisal of crisis management for meeting sudden and unexpected events to readily and deftly deal with the situations by declaring well-defined procedures in the epic Ramayana.

<b>Table-2 (a) – Duties of the King and Polity</b>	
1. Limbs of the Constitutional Monarchy – Ver. 68	i. King; ii. Ministers; iii. Friends; iv. Treasure; v. Territory; vi. Forts; vii. Army;
2. Composition of Administrative Governance – Ver. 36	i. The Chief Minister; ii. The King’s Family Priest; iii. The Crown Prince; iv. The Generalissimo; v. The Chief Warder; vi. The Chamberlain; vii. The Superintendent of Jails; viii. The Chancellor of the Exchequer; ix. The Herald; x. The Government Advocate; xi. The Judge; xii. The Assessor; xiii. The Officer Disbursing Salaries to Army Men; xiv. The Officer Drawing Money from the State Exchequer to Disburse the Workmen’s Wages; xv. The City Kotwal (Mayor of The City); xvi. The Protector of the Borders of a Kingdom, who also Performed the Duties of a Forester; xvii. The Magistrate; xviii. The Officer Entrusted with the Conservation of Waters, Hills, Forests and Tracts Difficult of Access.
3. Code of Conduct to Eschew – Ver. 68	i. Hunting; ii. Gambling; iii. Sleeping during the Day; iv. Lustfulness; v. Inebriation (alcohol); vi. Pride; vii. Defamation; viii. Lounging About Idly or Aimlessly; ix. Diversions Such as Singing and Dancing
4. Monarchs That Are Not Worthy of Negotiation – Ver. 69	

i. A king who is yet a child; ii. Aged; iii. Who has been ailing for a long time; iv. Who has been ostracized by his own kith and kin; v. Who is characterized by a cowardly attitude; vi. Who is surrounded by cowards; vii. Who is greedy; viii. Has greed associated; ix. Who has estranged his ministers and others; x. Who confers with fickle-minded persons; xi. Who speaks ill of divine beings and Brahmins; xii. Who is extremely indulged in sensuous pleasures and luxuries; xiii. Who is ill-fated; xiv. A fatalist (who believes that all things are pre-determined or subject to fate); xv. Who is afflicted by famine and; xvi. By military reverses; xvii. Who (mostly) remains away from home; xviii. Who has numerous enemies; xix. Who is in the clutches of adverse times; xx. Who is not devoted to truth and piety;

<b>Table-2 (b)</b>	
<b>Management Expedients</b>	
<b>A. Economic Stability and Equity – Ver. 68</b>	
i. Making Peace; ii. Liberality; iii. Sowing Dissension; iv. Chastisement.	
<b>B. Defence Infrastructure – Ver. 68</b>	
i. By Moat; ii. High Bank; iii. Trees Thickly Planted; iv. A Space Destitute of Grain or Provisions; v. The Turning of Waters.	
<b>C. Strategic Expedients – Ver. 69</b>	
i. Coming to terms with the enemy; ii. Waging war against him; iii. Marching against him; iv. Biding one's time to seek a favourable opportunity; v. Causing dissension in the enemy's ranks; vi. Seeking the protection of a powerful ally.	
<b>D. Knowledge and Education Advancement – Ver. 68</b>	
i. The Three Vedas; ii. The Knowledge Relating to Agriculture; iii. Commerce and other Vocational Pursuits and Political Science.	
<b>E. Objects of Human Pursuit – Ver. 68</b>	
i. Religious Merit; ii. Material Wealth; iii. Sensuous Enjoyment or the three kinds of power (viz. Energy, Power of Dominion, Power of Counsel).	
<b>F. Adversities brought about by Human Agencies – Ver. 69</b>	
i. Officials; ii. Thieves; iii. Enemies; iv. King's Favourite; v. King Himself, when actuated by Greed.	
<b>G. Adversities brought about by Nature – Ver. 69</b>	
i. Fire; ii. Water in The Shape of Excessive Rains or Floods; iii. Epidemic or Endemic Diseases; iv. Famine and Pestilence; v. Earthquakes and Tsunamis.	

Source: Valmiki Ramayana - Ayodhya Kanda - Chapter [Sarga] 100 - Verses 36, 68, 69.

All these analysis goes to show well-orchestrated administrative set-up and management processes that have facilitated to ensure long-term viability and sustainability while its management contributed positively in advancing the Ayodhya Kingdom, as an ideal society.

**Leadership and Decision Management**

Western theories observed that leadership involves the decision process, which entails (Hoffman, Robert R. and Yates, Frank J., 2005) a host of significant cognitive, evaluative, and affective motive-motivation activities toward accomplishing the given objectives, tasks or goals. Vroom and Yetton (1973) have developed a leadership decision-making model that indicates the situations in which various degrees of people participation in decision-making. Wagen and Carlos (2005), stated that leadership qualities will pave the way through task management and people management.

Further, elaborating on the management process, [Stoner, James., et al, 2006], opined that it is a governance process of planning, organizing, leading, and controlling the work of organization members. Stoner, James., et al, (2006), clarified that management is a specialty in dealing with human beings and human relationships dealing with matters of time as they arise, to reach organizational goals by using all available resources.

Resonance of these Western concepts that are vividly observed in traditional scriptures including Ramayana. Decision-making is defined as a commitment to a course of action (Yates, and Tschirhart, 2006) intending to serve the interests and values of particular people. Sigmund Freud (1930), the father of psychology opined that the 'one and only' objective of a person in life is the attainment of happiness through fulfilment of whatever assignment one takes up. However, the decisions during the course of events for establishing the leadership are elaborated (Bhargava Teja, 2013), to serve the intended interest of the course of action.

The fifth chapter, namely Sundara Kanda, in the Ramayana, is a captivating segment of the epic Ramayana that showcases the qualities of decision-making and leadership through devotion, courage, and diplomatic skills of Sri Hanuman's loyalty. Salient features of task management and people management during decision-making and consequently exhibiting

leadership qualities are found in Sundara Kanda. All related verses are codified from Sundara Kanda and presented in table 2 & 3 while significant of them are denoted as follows;

Sundara Kanda declares that the person who achieves the tasks should always be acknowledged while one performs all related tasks without any brief in addition to the assigned task and without affecting the main objective is really worthy.

kArye karmaNi nirdiSTe yo bahUnyapi sAdhayet|  
pUrvakAryAvirodhena sa kAryaM kartumarhati||  
(Ramayana – 5-41-5)

“He alone can accomplish his purpose, who implements many tasks even after the initial task has been carried through, without impairing the previous achievement.”

Further, while dealing with task management, it says that the person should be without any apprehension while initiating the task and should be capable of doing the task in many ways by finding several ways and means. The following verse signifies multi-task management.

na hi ekah saadhako hetuh svalpasya api iha  
karmanah  
yo hi artham bahudhaa veda sa samartho artha  
saadhane (Ramayana – 5-41-6)

“There is indeed no single exclusive method to accomplish a purpose however small a task may be. On the other hand, whoever knows to do a task in many ways, he alone is capable of achieving that task.”

Equal emphasis is also laid on people management by stressing the need for self-reliance and the absence of despondency, with the virtues of endurance and humility which eventually lead to prosperity. As an example, the following verse signifies the importance of self-reliance.

anirvedah shriyo muulam anirvedah param sukham  
anirvedo hi satatam sarva arthesu pravartakah  
(Ramayana – 5-12-10)

Being free from despair is the root cause of prosperity.  
Freedom from despondency gives supreme happiness  
and leads to success.

The significance of serving the people, particularly while returning the service rendered

by declaring it is the Santana Dharma, through the following verse.

krte ca pratikartavyameṣa dharmah sanātanaḥ |  
so 'yaṃ tatpratikārāthī tvattaḥ sammānamarhati ||  
(Ramayana – 5-1-113)

“When help is rendered, it should be repaid. This is an eternal Dharma. Such this who wants to do a return, is suitable for respect by you.

The significance & importance of the pivotal theme that glorified Ramayana is the Dharma and the following verse cautions, if Dharma is not followed then even the prosperous countries and cities are destroyed on account of indiscreet rulers engaged in unfair means.

akṛtātmānamāsāḍya rājānāmanaye ratam ||  
samṛddhāni vinaśyanti rāṣṭrāṇi nagarāṇi ca |  
(Ramayana – 5-21-11)

“Even prosperous countries and cities are destroyed on account of indiscreet rulers engaged in unfair means.

Further, with the same emphasis, Sundara Kanda reiterates that the fruit of righteousness and unrighteousness do not exist together and further it states unrighteousness will destroy righteousness.

na tu dharmā upasamhāram adharma phala samhitam ||  
tat eva phalam anveti Dharmah ca adharma nāśanaḥ |  
(Ramayana – 5-51-28)

“The fruit of Dharma does not accrue to one who has reached the culmination of Adharma. Unrighteousness will destroy the fruits of righteousness.”

Other related references that are significant and correspond to Western theories on leadership roles and leadership functions are codified from 2<sup>nd</sup> and 5<sup>th</sup> Chapters, namely Ayodhya Kaanda & Sundara Kaanda of Ramayana are presented for ready reckon, in Table-3.

It can be readily observed from Table-3 that the duties of leadership roles are divided into establishment and administrative procedures while leadership functions including task management and people management. Corresponding verses are codified and in the presented in Table-4. It is interesting to note that Santana Dharma shall enhance leadership management tenets which are

**Table 3: Leadership Management Roles and Functions**

Leadership Management	Scriptural Content in Resonance to Modern Propositions	Corresponding references from Ramayana *
I. Leadership Roles		
a. Establishment	i. Maintain Confidentiality	2-100-18
	ii. Solicit advise from wise	2-100-22
	iii. Appropriate allocation of Work	2-100-25
	iv. Appointment of incorruptible people	2-100-26
	v. Skill and Domicile based selection	2-100-35
	vi. Righteous Disciplinary procedures	2-100-56
b. Organisation	i. Timely payment of Wages	2-100-33
	ii. Regular contact with people	2-100-51
	iii. Maintaining Discipline with concern	2-100-52
c. Readiness to meet exigencies	i. Realize the adversities of the human agencies	2-100-68
	ii. Caused by divine agencies	2-100-68
	iii. Identify strategic expedients	2-100-68
II. Leadership Functions		
a. Leadership	i. Four qualities – Courage, Vision, Intellect & Skill	5-1-200
b. Task Management Criteria	i. Doing a task without expecting apprehension	5-30-35
	ii. Capable of multiple task management	5-41-5
	iii. Finding many ways to achieve the task	5-41-6
	iv. To be very focused in expressing things	5-58-5
c. People Management Criteria	i. Absence of despondency and self-reliance	5-12-10
	ii. Virtue of endurance	5-55-6
	iii. Humility is the root of prosperity	5-64-17
d. Communication	i. To be intelligent and should not think clever	5-2-40
e. Negotiation	i. Worthy act should not be left unfulfilled	5-1-97
f. Risk and Uncertainty	i. Even prosperous entities destroyed by indiscreet decision makers	5-21-11
g. Ethical Practice	i. The consequences of acts of unrighteousness follows	5-51-28
h. Moral Practice	i. Superiors are bound to hear accomplishers	5-62-3

\* indicates Book No. - Chapter No. - Verse No. respectively

Source: Valmiki Ramayana - Ayodhya Kanda's Chapter 100 and Sundara Kanda's Chapters.

going to infuse the sentiment, fervor, emotion and a sense of belonging in translating the decisions into fruitful actions.

### **Bharat that Aspires Ayodhya Model**

Aspiring Bharat is a sustainable administration model that not only prioritizes ethical considerations

in its operations but also integrates sustainability practices into its core administration. The concept is based upon to build an ideal society for harmonious living and holistic development for ultimate goal of all-round happiness. Attributes that qualified Ayodhya as a sustainable model in all aspects of the Nature, Human and the Society are identified from

the Second Chapter of Ayodhya Kanda. The features of the ideal society that declared are codified and presented in the Table-4.

It can be observed from the table that Rama Rajya is to be a society that is free from evil people, adversities with all round happiness. Further, a society that is richly virtuous with timely rains, delightful breeze and fruit bearing trees in all seasons. The constitution of Ayodhya administration centered around Dharma facilitated and supported for the integration of the trinity people, nature and society for establishing a sustainable society.

In accordance to *Brihaddharma Purana* the various constituents of wheel of the *Dharma* denoted as follows;

सत्यं दया तथा शांति रहिंसा चेति कीर्तिताः ।  
धर्मस्यावयवास्तात चत्वारः पूर्णतां गताः ।

*Brihaddharmapuranam* | 1 | 3047 || 2 | 112 ||

The above verse declares that the *Dharma* (Piety) comprising of four basic principles viz., Truth (Satyam), Compassion (Daya), Peace (Shanti) and Non-violence (Ahimsa) as its core enshrined in ancient Indian scriptures (Vedas, anonymous). Further, the constituents of the each four-fold classification [Bhargava Teja, 2024] are narrated in the subsequent verses of *Brihaddharma Purana* (in Sanskrit), which are translated and reproduced in the Figure. 1, for ready reference.

It can be observed from Figure 1 that Truth comprises 12 values, while Compassion, Peace and Non-violence comprise six, thirty and seven values respectively. The virtues in each constituent of the *Dharma*, form into basic building blocks for Aspiring Bharat. Unfolding of Aspiring Bharat is found it have a genesis from components of *dharma* passing through ethics, and morals for establishing a sustainable society.

However, the application of principles of *Dharma* is schematically observed from the previous works and the earlier sections that have resulted in fostering an ideal Ayodhya community characterized by compassion, sustainability, and a shared commitment to ethical values. Further, it is noted that a collective effort to integrate *Dharma* into daily practices, institutions, nature and societal norms, has created *Ayodhya*, a flourishing and harmonious Bharat in ancient times.

Furthermore, it can be observed that this passing through virtues and *Dharma*, coupled with ethics and morals, centered around Ideal Society, comprising of a good person, a good life and a good society, leads ultimately to establishing an Ideal Society.

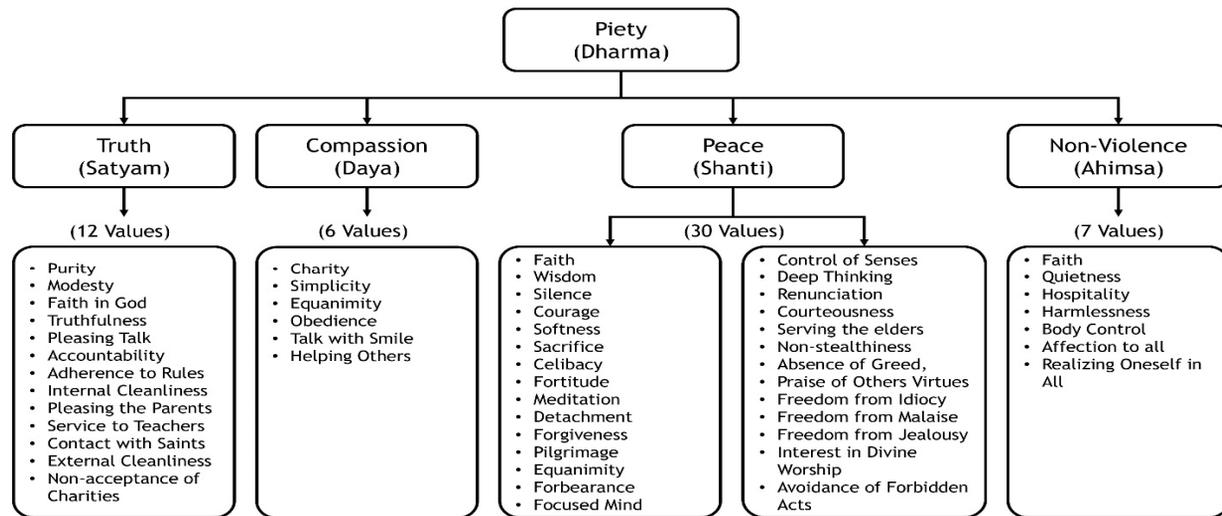
## Conclusion

Ancient scriptures declare that *Dharma* constitutes truth, compassion, peace & nonviolence with their constituent values in each of the

**Table 4: Declarations for Aspiring Bharat**

#	Sanskrit	Transliteration	English Translation
1	न च व्यालकृतं भयम्	<i>na ca vyālakṛtaṃ bhayam</i>	No fear from vicious (evil people)
2	न व्याधिजं भयं चासीत्	<i>na vyādhijaṃ bhayaṃ cāsīt</i>	No fear from disease (adversities)
3	निर्दस्युरभवल्लोके	<i>Nirdasyurabhavalloke</i>	No threat from robbers (competitors)
4	नानर्थं कश्चिदस्पृशत्	<i>nānarthā kaścidaspr̥ṣat</i>	No calamity touches the brave
5	सर्वं मुदितमेवासीत्	<i>sarva muditamevāsīt</i>	All round happiness
6	सर्वो धर्मपरोऽभवत्	<i>sarvo Dharmaparoḍabhavat</i>	Let everyone be righteous
7	नाभ्यहिंसन् परस्परम्	<i>nābhyahimsan parasparam</i>	No hurting/violence on each other
8	निरामया विशोकाश्च	<i>nirāmayā viśokāśca</i>	Without ill-health and sorrow/grief
9	नित्यमूला नित्यफलाः	<i>nityamūlā nityaphalāḥ</i>	Always be rootful & fruitful (Productive)
10	तरवस्तत्र पुष्पिताः	<i>taravastatra puṣpitāḥ</i>	Wherever a tree, flowers blossom
11	कामवर्षी च पर्जन्यः	<i>kāmavarṣī ca parjanyaḥ</i>	When you desire, cloud rains
12	सुखस्पर्शश्च मारुतः	<i>sukhasparśaśca mārutaḥ</i>	Touch a breeze, is delightful
13	स्वकर्मसु प्रवर्तन्ते	<i>svakarmasu pravartante</i>	One acts as prescribed
14	तुष्टाः स्वैरेव कर्मभिः	<i>tuṣṭāḥ svaireva karmabhiḥ</i>	One works at own will happily
15	सर्वे लक्षणसम्पन्नाः	<i>sarve lakṣaṇasampannāḥ</i>	May everyone be prosperous
16	सर्वे धर्मपरायणाः	<i>sarve Dharmaparāyaṇāḥ</i>	May everyone be righteous

**Figure. 1: Paths of Dharma and Their Components**



classified categories. Further, it is observed Dharma guides individuals on what is desirable, and what is ethically and morally right, for Aspiring Bharat. Dharma along with morals and ethics are observed in first, second and fifth chapters of the epic Ramayana narrated in Bala Kaanda, Ayodhya Kaanda and Sundara kanda respectively.

The virtues of Rama, as an ideal leader, with unwavering devotion to *Dharma*, righteousness, and compassion for all living beings, are found in the Bala Kanda while Sundara Kanda is a captivating segment of the Ramayana that showcases Hanuman's diplomatic skills, along with task management and people management that sets the central stage for the resolution of the central conflict in the epic.

Yuddha Kanda narrates regarding Sri Rama firmly establishing Rama Rajya, whose primary qualities described as happiness with blossoming fowlers and fruits and earning clouds, a prosperous and righteous society.

### Acknowledgement

The author gratefully acknowledges Prof. Dr. B.H. Briz-Kishore, F.I.E, D.Litt, Higher Education Advisor, Govt. of Haryana and PMO (Fmr.) Advisor & Policy Maker in Government of India, for initiating him on to the topic that resonates with the New Education Policy 2020 requirements, which focuses on values, virtues, and holistic personality development.

### References and Readings

1. Bhargava, Teja, B., (2013). Modern Reflections on Event Management and Leadership Practices from Ancient

India, *International Journal of Business Management and Leadership*, Volume 4, Number 1, Research India Publications, pp. 1-18.

2. Bhargava Teja, B. (2023-a). Significance of Indian Knowledge Systems in Evolving Modern Management Practices, *University News*, 61(47), November 20-26, pp. 37-46.

3. Bhargava, Teja, B. (2023-b). Resonance of Modern Concepts of Event, Decision and Leadership with Ancient Scriptures, Ch. – 2, *Business Management: A Practitioners' Guide Vol - 2*, V.B. Sanchez (Ed.), International Research Publication House, New Delhi, pp. 14-31.

4. Bhargava Teja, B. (2024). Indian Ethos for Managing Karma, Niti and Dharma Events with Contemporaneous Thoughts towards Innovating Bharat, *University News* 62(08) February 19-25, pp. 8-16.

5. Fayol, Henry., (1949). *General and Industrial Management*, Pitman, United Kingdom; and, Drucker, P., F., (1975). *Management; Tasks, Responsibilities and Practices*, Allied Publishers: New Delhi.

6. Freud, Sigmund (1930). *Civilization and Its Discontents*, W.W Norton and Company Inc, NY.

7. Hoffman, Robert R. and Yates, J. Frank., *Decision(?) Making(?)*, (2005). IEEE Computer Society.

8. Koontz, H. and O'Donnell, C. (1955). *Principles of Management*, McGraw- Hill: NY.

9. Stoner, James A., F., Freeman, R. Edward. and Gilerbert, Jr., Daniel, R., (2006). *Management*, New Delhi: Prentice Hall of India Private Limited. pp.9.

10. Vroom, V. and Yetton, P. (1973). *Leadership and Decision Making*, University of Pittsburg Press, Pittsburg.

11. Wagen, L.,V.,D. and Carlos, B., R. (2005). *Event Management for Tourism, Cultural, Business and Sporting Events*, Pearson Education, New Delhi, pp.200.

12. Yates, J., F. and Tschirhart, M., D. (2006). *Decision Making Expertise*, Cambridge Handbook on Expertise and Expert Performance, A. Ericsson et al., eds., Cambridge Univ. Press. □

# Indian Knowledge System

Gedam Kamalakar\*

The Indian Knowledge System (IKS) represents a vast body of indigenous knowledge developed over millennia, encompassing various disciplines such as philosophy, science, mathematics, medicine, linguistics, architecture, arts, and spirituality. Rooted in ancient texts like the Vedas, Upanishads, and epics, IKS reflects the intellectual heritage of India, offering holistic perspectives on life, nature, and human development. Its principles emphasize harmony with nature, sustainability, and material and spiritual knowledge integration. In recent years, there has been a renewed interest in IKS, particularly within education and research. This resurgence aligns with India's broader efforts to integrate traditional wisdom with modern knowledge systems. Government initiatives, academic reforms, and interdisciplinary studies contribute to the revival of IKS, aiming to enrich contemporary learning with age-old insights, fostering innovation, ethical values, and a deeper understanding of socio-cultural dynamics. This abstract explores the significance of IKS in modern education, examining its potential to address contemporary challenges in sustainability, health, ethics, and global harmony. By promoting the Indian Knowledge System alongside modern curricula, a more inclusive, diversified, and holistic approach to education can be achieved, enhancing critical thinking, creativity, and cross-cultural understanding in today's globalized world.

The Indian Knowledge System (IKS) is a comprehensive and deeply rooted intellectual tradition that has evolved over thousands of years, encompassing a wide range of disciplines, including science, philosophy, mathematics, medicine, arts, linguistics, and spirituality. This vast body of knowledge is primarily derived from ancient texts such as the Vedas, Upanishads, Puranas, and epics like the Ramayana and Mahabharata, which offer insights into various aspects of life, nature, and the universe. IKS emphasizes the interconnectedness of all forms of knowledge, advocating for a holistic approach that integrates material, intellectual, and spiritual wisdom.

---

\* Post-Doctoral Fellow ICSSR, Department of Political Science, Dr. B.R. Ambedkar Open University, Hyderabad, Telangan-500033. E-mail: kamalakarou@gmail.com

The Indian Knowledge System is distinct in its approach to understanding the world, with an emphasis on sustainability, harmony with nature, and ethical living. For example, Ayurveda and Yoga focus on physical, mental, and spiritual well-being, while Vedic mathematics and astronomy reveal advanced scientific understanding developed centuries ago. Similarly, Indian philosophical traditions such as Advaita Vedanta and Samkhya explore the nature of consciousness and the universe, offering profound insights into the human experience.

In recent years, there has been a growing recognition of the value of IKS in addressing contemporary challenges. As the world grapples with issues related to environmental sustainability, mental health, and ethical dilemmas, IKS offers timeless principles that remain highly relevant. The Indian government, educational institutions, and scholars have been working to integrate IKS into modern education systems, aiming to preserve this invaluable heritage while adapting it to meet the needs of contemporary society.

This introduction sets the stage for a deeper exploration of IKS, highlighting its relevance in today's globalized world. By embracing this ancient knowledge and integrating it with modern scientific advancements, IKS provides a unique perspective that can enhance critical thinking, creativity, and holistic development across various fields of study. Through renewed focus on the Indian Knowledge System, there is potential for transformative learning that fosters not only intellectual growth but also ethical and spiritual well-being.

## Objectives of the Indian Knowledge System

The Indian Knowledge System (IKS) serves a variety of objectives that are both timeless and relevant to contemporary educational, scientific, and philosophical contexts. These objectives aim to preserve, promote, and integrate indigenous knowledge with modern advancements, offering a holistic approach to learning and understanding.

### *Preservation and Promotion of Indigenous Knowledge*

One of the primary goals of IKS is to safeguard the vast repository of traditional knowledge

accumulated over millennia, ensuring that it is passed on to future generations while promoting its relevance in modern contexts.

### ***Integration of Traditional and Modern Knowledge***

IKS seeks to create a balanced educational framework by integrating ancient Indian wisdom with modern scientific advancements, offering an interdisciplinary approach that bridges the gap between tradition and contemporary learning.

### ***Holistic Education***

IKS emphasizes a holistic understanding of knowledge that goes beyond the material, fostering intellectual, emotional, and spiritual growth. It encourages learners to explore the interconnectedness of disciplines such as philosophy, science, and the arts.

### ***Promotion of Ethical and Sustainable Practices***

By drawing from ancient Indian texts and principles, IKS advocates for a way of life rooted in ethics, sustainability, and harmony with nature. It aims to address contemporary global challenges like environmental degradation, mental health, and social inequality through timeless values.

### ***Fostering Critical Thinking and Innovation***

IKS encourages critical thinking, problem-solving, and creativity by offering diverse perspectives on reality, the self, and the universe. By understanding ancient philosophies and methodologies, learners can cultivate innovative solutions to modern-day challenges.

### ***Revitalizing Cultural Identity***

IKS plays an important role in revitalizing and affirming cultural identity by reconnecting individuals and communities with their intellectual heritage. This helps in fostering a sense of pride and belonging while promoting cultural diversity.

### ***Promoting Well-being and Mental Health***

Through practices such as Yoga, Ayurveda, and meditation, IKS promotes physical, mental, and spiritual well-being. These traditional methods contribute to the holistic health of individuals, addressing stress, lifestyle diseases, and mental health issues.

### ***Cross-cultural Understanding and Global Harmony***

IKS aspires to create a dialogue between different knowledge systems globally, promoting

cross-cultural understanding and cooperation. Its principles of unity, inclusivity, and non-dualism can contribute to peaceful coexistence and global harmony.

### ***Sustainable Development and Environmental Awareness***

The Indian Knowledge System encourages sustainable living by advocating for practices that are in harmony with nature. Concepts such as Ahimsa (non-violence) and Dharma (duty) promote ecological balance, conservation, and responsible resource management.

### ***Encouraging Lifelong Learning***

IKS fosters an attitude of lifelong learning and self-reflection, encouraging individuals to continuously seek knowledge not only for professional growth but also for personal and spiritual enrichment.

These objectives position the Indian Knowledge System as a valuable framework for both academic and personal development, offering insights and solutions that are as relevant today as they were centuries ago. Integrating IKS into modern education has the potential to create well-rounded, ethical, and innovative individuals who can contribute positively to society and the world at large.

### ***Indian Knowledge System (IKS) Cell***

An Indian Knowledge System (IKS) Cell is an institutional body or initiative established within educational institutions, research centers, or organizations to promote the study, integration, and dissemination of India's rich indigenous knowledge. These cells play a crucial role in bringing traditional Indian knowledge into the mainstream educational framework and research agendas. The IKS Cells aim to bridge the gap between ancient wisdom and modern disciplines, ensuring that India's intellectual and cultural heritage is preserved, researched, and applied in contemporary contexts.

### ***Research and Documentation***

The IKS Cell focuses on documenting traditional knowledge and practices from various disciplines such as Ayurveda, Yoga, Vedic Mathematics, Philosophy, Linguistics, and Arts. It conducts research to validate and integrate ancient knowledge with modern scientific approaches.

### ***Curriculum Development***

The IKS Cell is involved in the development of curricula that integrate traditional Indian knowledge into mainstream education, helping students gain insights from both ancient and contemporary perspectives. The cell designs courses, seminars, and workshops for students and faculty to understand the relevance of IKS in modern times.

### ***Interdisciplinary Studies and Integration***

By promoting interdisciplinary research, the IKS Cell facilitates the integration of ancient Indian knowledge with modern disciplines like science, technology, medicine, environmental studies, and social sciences. The cell collaborates with various departments to ensure that IKS is incorporated into academic and research programs.

### ***Skill Development and Innovation***

The IKS Cell helps in the development of skills that are aligned with traditional knowledge systems, such as those in healthcare (Ayurveda, Yoga), architecture (Vastu Shastra), and arts (Indian classical music and dance). It encourages innovation by exploring how ancient techniques and methodologies can be applied to solve modern challenges, particularly in areas like sustainability, holistic health, and ethical governance.

### ***Workshops, Seminars, and Public Engagement***

The IKS Cell organizes workshops, conferences, and seminars to spread awareness about the Indian Knowledge System among students, faculty, and the public. Public outreach programs are conducted to engage with communities and promote traditional practices that enhance well-being and environmental sustainability.

### ***Collaborations and Partnerships***

The IKS Cell works in collaboration with national and international institutions, research bodies, and experts to promote knowledge exchange and bring global recognition to India's traditional knowledge. It also collaborates with government bodies, particularly those involved in education and culture, to promote IKS at various levels.

### ***Publication and Dissemination***

The IKS Cell is responsible for publishing research papers, books, and educational materials

related to the Indian Knowledge System. It aims to disseminate knowledge through digital platforms, media outreach, and scholarly publications to reach a wider audience.

### ***Promoting Ethical and Sustainable Practices***

The IKS Cell emphasizes the application of ethical values from Indian philosophies and texts in various fields, including education, business, governance, and environmental conservation. It seeks to promote sustainable development practices drawn from ancient knowledge, advocating harmony with nature and responsible resource management.

### **Example of IKS Cells in India**

- ***AICTE's IKS Division***

The All India Council for Technical Education (AICTE) has set up an Indian Knowledge System (IKS) Division to promote interdisciplinary research and curriculum development that brings together traditional Indian knowledge and modern science and technology. This division aims to foster an appreciation of India's intellectual legacy among students and scholars globally.

- ***University-Based IKS Cells***

Various universities in India, such as IITs, NITs, and central universities, have started setting up IKS Cells that collaborate with scholars, researchers, and industry to explore the relevance and application of Indian knowledge systems in modern education and industry practices.

An IKS Cell serves as a vital platform for revitalizing and integrating India's traditional wisdom into contemporary academic and practical frameworks. By focusing on research, curriculum development, interdisciplinary integration, and public engagement, these cells foster a deeper understanding of the Indian Knowledge System, bridging the gap between ancient knowledge and modern advancements.

### **Mission of the Indian Knowledge System (IKS)**

The mission of the Indian Knowledge System (IKS) is to revitalize, preserve, and promote India's rich intellectual and cultural heritage by integrating ancient wisdom with contemporary knowledge systems. This mission seeks to foster holistic development, interdisciplinary learning, and global

harmony by applying the timeless principles of Indian philosophy, science, and ethics to modern-day challenges. The primary goals of the IKS mission can be summarized as follows:

### ***Preservation and Documentation***

To preserve and document India's vast repository of traditional knowledge from ancient texts, practices, and oral traditions, ensuring its accessibility for future generations. To systematically collect, translate, and archive ancient Indian texts and manuscripts, making them available for scholarly study and research.

### ***Educational Integration***

To integrate the Indian Knowledge System into modern education at all levels, from primary to higher education, providing a balanced curriculum that includes traditional and contemporary knowledge. To develop academic programs, courses, and research centers dedicated to studying and teaching IKS across disciplines such as science, philosophy, medicine, art, and spirituality.

### ***Interdisciplinary Research and Innovation***

To encourage interdisciplinary research that connects ancient Indian wisdom with modern advancements in science, technology, healthcare, environmental sustainability, and social sciences. To inspire innovation by drawing on traditional knowledge systems for contemporary problem-solving, particularly in areas such as sustainable development, holistic health, and ethical governance.

### ***Promoting Ethical and Sustainable Values***

To foster ethical, sustainable, and socially responsible practices through the teachings of Indian philosophies like Ahimsa (non-violence), Dharma (duty), and Vasudhaiva Kutumbakam (the world is one family). To encourage the adoption of IKS-based solutions to global challenges, particularly in the fields of environmental conservation, health and well-being, and education reform.

### ***Global Recognition and Cross-Cultural Dialogue***

To promote global recognition of India's intellectual heritage by fostering dialogue between Indian knowledge systems and other world traditions, creating opportunities for cross-cultural learning and collaboration. To position IKS as a vital contributor

to global intellectual and philosophical discourse, ensuring that ancient Indian knowledge is seen as relevant to modern global issues.

### ***Promoting Well-being and Holistic Health***

To promote the use of traditional Indian practices like Yoga, Ayurveda, and meditation for physical, mental, and spiritual well-being. To encourage the integration of these holistic health practices into mainstream healthcare systems for improving overall public health and wellness.

### ***Empowering Cultural Identity and Pride***

To revive and empower cultural identity and national pride by reconnecting individuals and communities with their intellectual and cultural heritage. To ensure that IKS becomes a source of inspiration for students and scholars, fostering a sense of belonging and contributing to cultural diversity and understanding.

### ***Fostering Lifelong Learning and Self-Reflection***

To inspire a lifelong pursuit of knowledge, self-reflection, and personal growth by incorporating the philosophical underpinnings of Indian thought, particularly the exploration of consciousness, reality, and self-knowledge. To cultivate a continuous learning mindset in students, educators, and professionals, promoting personal and societal transformation.

By fulfilling this mission, the Indian Knowledge System aims to bridge the gap between traditional wisdom and modern advancements, fostering a world that values holistic development, ethical living, and intellectual diversity. Through the revitalization and integration of IKS into education and research, the mission aspires to make meaningful contributions to global knowledge, cultural heritage, and sustainable development.

## **Indian Knowledge System (IKS) in Higher Education**

The Indian Knowledge System (IKS) is increasingly being integrated into higher education, offering a holistic, interdisciplinary approach that connects ancient wisdom with modern knowledge. This initiative aims to broaden the intellectual horizon of students, encouraging them to explore India's vast cultural, philosophical, scientific, and ethical traditions alongside contemporary subjects.

By embedding IKS in higher education, institutions seek to create a balanced, enriched learning experience that fosters critical thinking, innovation, and global understanding.

### ***Curriculum Integration***

- **Incorporation of IKS Subjects:** Universities are beginning to offer courses and programs that focus on ancient Indian disciplines such as Vedic sciences, Ayurveda, Yoga, Indian philosophy, mathematics, and astronomy. These subjects are often integrated into existing programs in science, engineering, management, and the humanities.
- **Interdisciplinary Approach:** IKS fosters interdisciplinary learning by connecting traditional knowledge with modern fields such as environmental studies, sustainability, health care, ethics, and technology. For example, courses in sustainable development may draw upon ancient Indian agricultural practices and environmental conservation principles.

### ***Research and Innovation***

- **IKS Research Centers:** Several universities have established dedicated Indian Knowledge System research centers to promote in-depth study of ancient texts, manuscripts, and practices. These centers encourage research that connects traditional knowledge systems with modern-day applications.
- **Innovation from Traditional Knowledge:** Research in IKS is driving innovation, particularly in areas like holistic health, sustainable agriculture, and natural resource management. For instance, exploring Ayurvedic practices for modern healthcare challenges or applying ancient engineering techniques in sustainable architecture.

### ***Development of Ethical Values and Leadership***

- **Ethical and Moral Education:** Higher education institutions are embedding the ethical values drawn from Indian Philosophy Dharma (duty), Ahimsa (non-violence), and Satya (truth) into their leadership and management programs. This provides students with a strong ethical foundation and encourages socially responsible decision-making.
- **Leadership Programmes:** Several institutions are integrating IKS concepts into leadership development programs, emphasizing values

like self-discipline, service, and mindfulness, as inspired by Indian thought.

### ***Promotion of Holistic Health and Well-being***

- **Ayurveda and Yoga in Education:** IKS promotes the inclusion of Ayurveda, Yoga, and meditation in higher education to foster physical, mental, and spiritual well-being. Many universities are introducing wellness programs based on traditional Indian practices to promote overall health among students and faculty.
- **Psychological Well-being:** Practices such as meditation and mindfulness, derived from Indian spiritual traditions, are being incorporated into mental health programs, contributing to stress management and emotional well-being in academic settings.

### ***Sustainability and Environmental Studies***

- **Ancient Environmental Practices:** IKS offers valuable lessons in sustainability through ancient Indian practices that promote harmony with nature and resource conservation. These concepts are being applied in modern environmental studies and policies aimed at tackling climate change and biodiversity loss.
- **Green Technologies:** The study of ancient technologies related to water conservation, architecture, and agriculture is being explored in modern-day research on green technologies.

### ***Language and Cultural Studies***

- **Sanskrit and Classical Indian Languages:** Higher education institutions are promoting the study of Sanskrit, Pali, Prakrit, and other classical Indian languages to engage with ancient texts and gain a deeper understanding of the Indian intellectual tradition.
- **Cultural Studies:** IKS encourages students to explore India's diverse cultural heritage through studies in art, music, dance, and literature, fostering a sense of identity and pride while promoting cultural diversity.

### ***Fostering Global Perspectives***

- **Cross-cultural Learning:** Integrating IKS into higher education enables students to engage with global knowledge systems while maintaining a strong connection to their cultural roots. This cross-cultural exchange fosters global

citizenship, allowing students to appreciate diverse perspectives.

- **Global Recognition of IKS:** By promoting the Indian Knowledge System in higher education, Indian universities are positioning themselves on the global stage, contributing to international discourse on sustainability, ethics, and holistic development.

### Challenges

- **Curriculum Standardization:** One of the challenges in integrating IKS into higher education is the lack of a standardized curriculum that systematically includes traditional knowledge.
- **Modern Relevance:** While IKS offers timeless wisdom, the challenge lies in making it relevant to contemporary issues and integrating it seamlessly with modern sciences and technologies.
- **Lack of Resources:** Adequate resources, including trained faculty, research materials, and funding, are essential for developing comprehensive IKS programs.

### Opportunities

- **Global Relevance of Ancient Knowledge:** The IKS provides invaluable lessons in sustainability, holistic health, and ethics, offering insights that are increasingly relevant in a world facing complex global challenges.
- **Research Opportunities:** There is significant potential for innovation in areas such as healthcare, environmental conservation, and ethical leadership by applying principles from IKS.
- **Cultural Revival:** IKS integration in higher education can contribute to the cultural revival and national pride, as students reconnect with their heritage and apply it to modern contexts.

The integration of the Indian Knowledge System (IKS) into higher education provides an opportunity to blend the best of ancient wisdom with modern knowledge. By fostering interdisciplinary research, holistic education, and ethical values, IKS can significantly contribute to the intellectual, emotional, and ethical development of students. With a growing emphasis on sustainability, health, and global interconnectedness, the inclusion of IKS in higher education has the potential to create well-

rounded individuals who are equipped to tackle both local and global challenges with innovative, ethical, and sustainable solutions.

### Indian Knowledge System (IKS) in Ancient Period Universities

The ancient period of India witnessed the establishment of several renowned universities that served as centers of learning and played a crucial role in the dissemination of knowledge across various fields such as philosophy, science, mathematics, medicine, and arts. Table 1 highlights some of the most significant ancient universities, along with their key features and contributions to the Indian Knowledge System (IKS).

#### Features of Ancient Indian Universities

**Curriculum:** The curriculum was holistic, encompassing a wide array of subjects including philosophy, science, arts, mathematics, and various traditional knowledge systems. It emphasized both theoretical knowledge and practical applications.

**Pedagogical Methods:** Ancient universities utilized a combination of oral tradition, debate, and practical training. Guru-shishya (teacher-student) relationships were pivotal in imparting knowledge.

**Diversity:** These institutions attracted students from various regions, promoting cultural and intellectual exchange. They were not limited to Indian students; scholars from Central Asia, Tibet, China, and Southeast Asia also came to learn.

**Influence on Society:** The teachings and philosophies developed in these universities significantly influenced societal norms, ethics, and cultural practices in ancient India and beyond.

**Preservation of Knowledge:** Many ancient texts, treatises, and scriptures were composed and preserved in these universities, contributing to the continuity of knowledge across generations.

The ancient universities of India played a crucial role in shaping the Indian Knowledge System by providing a platform for learning, debate, and intellectual growth. Their contributions to various fields continue to resonate today, and their legacy serves as a foundation for modern educational frameworks that value interdisciplinary learning and the integration of traditional knowledge systems.

**Table 1: Ancient Universities with their Key Features and Contributions to the Indian Knowledge System**

University Name	Location	Period of Establishment	Key Subjects/Disciplines Offered	Notable Contributions
<b>Nalanda University</b>	Bihar	5th century CE	Buddhist philosophy, medicine, mathematics, arts	One of the world's first residential universities; influenced Buddhism across Asia.
<b>Takshashila (Taxila)</b>	Punjab (modern-day Pakistan)	6th century BCE	Ayurveda, military science, Vedic studies, arts	Regarded as one of the earliest universities; known for its diverse curriculum and illustrious alumni.
<b>Vikramashila University</b>	Bihar	8th century CE	Buddhist philosophy, grammar, arts	A major center for Tantric studies; established by Dharmapala, a renowned Buddhist scholar.
<b>Kashi (Varanasi)</b>	Uttar Pradesh	Ancient times	Vedic studies, philosophy, arts	A prominent center for Hindu learning; renowned for its contribution to Sanskrit literature and philosophy.
<b>Nashik University (Nashik)</b>	Maharashtra	Ancient times	Vedic studies, astronomy, astrology	Known for its contributions to Vedic texts and astronomy; significant influence on Hindu traditions.
<b>Ujjain University</b>	Madhya Pradesh	Ancient times	Astronomy, mathematics, philosophy	A leading center for astronomical studies; home to notable scholars like Aryabhata.
<b>Sarnath</b>	Uttar Pradesh	Ancient times	Buddhist philosophy, arts	Major center for Buddhist learning; associated with the teachings of Gautama Buddha.
<b>Prayag (Allahabad)</b>	Uttar Pradesh	Ancient times	Vedic studies, grammar, philosophy	Important pilgrimage site; known for contributions to Vedic scholarship and rituals.

[https://en.wikipedia.org/wiki/Indian\\_Knowledge\\_Systems](https://en.wikipedia.org/wiki/Indian_Knowledge_Systems)

### **Indian Knowledge System (IKS) Guidelines by the Ministry and Regulatory Bodies**

The Indian government, through various ministries and regulatory bodies, has been actively promoting the integration of the Indian Knowledge System (IKS) into education, research, and public policy. These initiatives are aligned with the broader vision of reviving India's intellectual heritage and ensuring its relevance in modern education and society. The Ministry of Education, All India Council for Technical Education (AICTE), and other regulatory bodies have issued guidelines to implement IKS in higher education institutions.

#### **Ministry of Education (MoE) and National Education Policy (NEP) 2020**

The National Education Policy (NEP) 2020, released by the Ministry of Education, strongly emphasizes the inclusion of the Indian Knowledge

System in the academic curriculum across different levels of education. Some key guidelines include:

- **Curriculum Reform:** The NEP encourages the inclusion of IKS in both school and higher education curricula. It suggests that IKS be integrated into subjects like science, philosophy, mathematics, arts, and humanities, promoting a holistic and multidisciplinary approach to learning.
- **Language and Cultural Studies:** The policy highlights the importance of classical Indian languages such as Sanskrit, Pali, and Prakrit in preserving and understanding ancient Indian texts. It promotes their study to ensure access to traditional knowledge.
- **Interdisciplinary Learning:** NEP 2020 encourages interdisciplinary research that links ancient Indian knowledge with contemporary

fields such as technology, healthcare, and environmental sustainability.

- **Research and Documentation:** The NEP calls for the establishment of dedicated centers for research in the Indian Knowledge System, including universities and institutions specializing in IKS.

### ***All India Council for Technical Education (AICTE) Guidelines***

The AICTE, the regulatory body for technical education in India, has established the Indian Knowledge System (IKS) Division with the aim of promoting and integrating traditional Indian knowledge in technical education. Key initiatives include:

- **Creation of IKS Cells:** AICTE has recommended the establishment of IKS Cells in higher education institutions to promote interdisciplinary research, curriculum development, and public outreach programs related to Indian knowledge systems.
- **Curriculum Development:** AICTE encourages institutions to integrate IKS in courses such as engineering, medicine, architecture, and management. For example, principles from Vastu Shastra are suggested for architecture students, and Ayurveda for healthcare education.
- **Research Grants and Fellowships:** AICTE has launched funding schemes and research fellowships for projects that explore IKS, encouraging students and researchers to delve into India's intellectual traditions and apply them to contemporary challenges.
- **Workshops and Training Programmes:** AICTE regularly conducts workshops and training programs for faculty and students to enhance their understanding of IKS. These programs aim to create awareness of traditional Indian knowledge across various disciplines.

### ***University Grants Commission (UGC)***

The University Grants Commission (UGC) has also played a pivotal role in promoting the Indian Knowledge System in higher education. UGC's guidelines include:

- **Establishment of IKS Research Centers:** UGC has encouraged universities and research institutions to set up dedicated centers for the study of IKS. These centers focus on areas like Indian philosophy, ancient sciences, arts, and literature.

- **Introduction of IKS Courses:** UGC has recommended the inclusion of courses on Indian Knowledge Systems, such as Vedic studies, Indian epistemology, classical Indian arts, and traditional medicine, in university curricula.
- **Interdisciplinary Studies:** UGC supports the development of interdisciplinary programs that combine traditional Indian knowledge with modern fields of study, such as computational linguistics (using Sanskrit), traditional architecture, and environmental studies.
- **Incentives for Research:** UGC provides funding and fellowships to encourage faculty and students to undertake research projects in areas related to IKS. These incentives aim to promote academic scholarship in traditional Indian knowledge fields.

### ***National Institute of Open Schooling (NIOS)***

The National Institute of Open Schooling (NIOS) has also developed programs and courses aimed at disseminating the Indian Knowledge System to a wider audience. NIOS offers:

- **Courses on Vedic Studies, Yoga, and Ayurveda:** NIOS has introduced subjects focused on Yoga, Ayurveda, Vedic mathematics, and Indian philosophy at the secondary and senior secondary levels, promoting awareness from an early age.
- **Distance Education Programs:** NIOS provides flexible learning options through distance education, allowing individuals to study Indian Knowledge Systems at their own pace.

### ***National Assessment and Accreditation Council (NAAC)***

The NAAC emphasizes the need for institutions to focus on Indian cultural and intellectual heritage in their academic programs and research initiatives. Institutions are encouraged to:

- **IKS in Institutional Development:** NAAC includes the promotion of traditional knowledge as part of its accreditation criteria for universities and colleges, emphasizing the role of IKS in fostering national identity and intellectual growth.
- **Cultural Sensitivity and Research:** NAAC encourages institutions to engage with cultural sensitivity and research in areas of IKS, which can be used as a benchmark for quality education and research excellence.

### ***National Council of Educational Research and Training (NCERT)***

NCERT is responsible for developing school-level curriculum, and it has taken steps to incorporate IKS into school education, laying the foundation for its later integration into higher education. Key actions include:

- **Inclusion of IKS in Textbooks:** NCERT has revised its textbooks to include Indian Knowledge Systems in subjects like history, mathematics, science, and environmental studies to ensure students are exposed to India's traditional wisdom from an early age.
- **Teacher Training:** NCERT also conducts workshops and training programs for school teachers to equip them with the knowledge and skills to teach IKS effectively.

### ***National Innovation Foundation (NIF)***

The National Innovation Foundation (NIF), an autonomous body under the Department of Science and Technology, supports grassroots innovations and encourages the application of traditional knowledge in modern contexts. Key initiatives include:

- **Promotion of Indigenous Innovations:** NIF identifies and supports innovators who use traditional Indian knowledge in fields like agriculture, health, and technology. It offers funding and mentorship for projects that revive ancient practices.
- **Documentation of Indigenous Knowledge:** NIF also focuses on documenting India's indigenous knowledge systems, creating a repository of traditional practices that can be studied, improved, and applied to modern problems.

The Indian government and regulatory bodies have made significant strides in promoting the Indian Knowledge System across all levels of education, with a special focus on higher education. These guidelines emphasize the preservation of India's rich intellectual heritage, interdisciplinary research, curriculum development, and the ethical application of traditional knowledge in modern fields. Through these efforts, IKS is gradually being integrated into mainstream education, fostering a deeper connection with India's cultural roots while contributing to global knowledge systems.

### **Recommendations for the Promotion and Integration of (IKS)**

To effectively promote and integrate the

Indian Knowledge System (IKS) into modern education, research, and governance, several strategic recommendations can be made. These recommendations address curriculum development, research promotion, resource allocation, and awareness building, ensuring that IKS contributes meaningfully to both the academic and broader societal landscape.

### ***Curriculum Development and Integration***

- Introduce IKS in Core Subjects: Schools:** IKS concepts can be introduced from the primary level, integrating subjects such as Vedic mathematics, Indian philosophy, Ayurveda, and Yoga into the existing curriculum. This will provide students with a foundation in traditional knowledge from an early age. **Higher Education:** IKS must be integrated as core or elective courses in universities, covering topics like Indian sciences, traditional arts, linguistics, and ancient technologies. This can be done within engineering, medical, and management programs to highlight its interdisciplinary nature.
- Develop Interdisciplinary Programmes:** Encourage universities to design interdisciplinary programs that combine modern science and technology with traditional knowledge. For example, combining Ayurvedic principles with biomedical sciences or ancient architecture (Vastu Shastra) with modern engineering.
- Mandatory IKS Modules:** All academic institutions, especially universities and technical institutions, should make IKS modules or courses a part of their academic programs, making it mandatory for students to engage with IKS principles.

### ***Research and Innovation***

- Establish IKS Research Centers:** Universities should set up IKS research centers dedicated to the study of ancient texts, knowledge systems, and their relevance to modern science, technology, and society. These centers should foster collaborative research across disciplines like health, environment, mathematics, and engineering.
- Promote Indigenous Knowledge-based Innovation:** Encourage innovation by leveraging traditional Indian practices and knowledge systems to address modern challenges. For example, sustainable agricultural techniques derived from ancient practices or natural medicinal products based on Ayurvedic formulations should be promoted as part of research agendas.

- c. **Funding and Fellowships:** Increase funding and fellowship opportunities for students and researchers working on IKS-related projects. Government bodies like AICTE, UGC, and other research councils should provide dedicated grants for interdisciplinary research connecting IKS with contemporary sciences and humanities.
- b. **Translation and Interpretation of Ancient Texts:** Translate ancient Indian texts into various Indian and foreign languages to make them accessible to scholars, researchers, and students worldwide. This includes texts in Sanskrit, Pali, Prakrit, and other classical languages.

#### *Awareness and Capacity Building*

- a. **Faculty Training and Development:** Conduct faculty development programs (FDPs) and workshops to train educators in Indian Knowledge Systems, empowering them to effectively teach IKS in classrooms and promote its relevance across disciplines.
- b. **Public Awareness Programs:** Launch public outreach and awareness campaigns to educate the broader public about the significance of IKS in areas like health, wellness, sustainability, and ethics. Media platforms and public forums can be used to build public engagement.
- c. **Collaborations with Industry and Global Institutions:** Encourage collaborations between educational institutions, research bodies, and industries to apply IKS knowledge to real-world problems. Global partnerships with international universities or research institutions can also foster cross-cultural dialogue and collaborative research.

#### *IKS in Governance and Policy Making*

- a. **Adoption of IKS in Sustainable Development Policies:** Government policies on sustainable development, healthcare, and environmental conservation should actively incorporate traditional Indian knowledge and practices. For example, promoting organic farming and natural resource management based on ancient Indian agricultural practices.
- b. **IKS for Ethical Leadership and Governance:** Traditional Indian values of Dharma (duty), Ahimsa (non-violence), and Satyam (truth) should inform leadership development programs for public officials and corporate leaders, ensuring ethical and responsible governance.

#### *Documentation and Digital Archiving*

- a. **Digitization of Ancient Texts and Manuscripts:** Invest in large-scale digitization of ancient manuscripts, texts, and oral traditions to create accessible digital archives. This will preserve India's vast intellectual heritage and allow for modern analysis, translation, and research.

- c. **Open-Source Knowledge Platforms:** Create open-source online platforms that house research, digitized manuscripts, and teaching materials on IKS, allowing free access to scholars, students, and the public.

#### *Incorporation of IKS in Healthcare*

- a. **Ayurveda and Yoga in Modern Medicine:** Encourage the integration of Ayurveda and Yoga into modern healthcare systems to promote holistic health. Healthcare institutions and educational programs should include these traditional practices alongside allopathic medicine.
- b. **Mental Health and Well-Being:** Incorporate IKS principles related to meditation, mindfulness, and psychological well-being in mental health programs, helping address contemporary challenges like stress, anxiety, and depression.

#### *Policy Recommendations for Regulatory Bodies*

- a. **Guidelines for Educational Institutions:** Bodies like AICTE, UGC, and NAAC should issue clear guidelines for incorporating IKS in curricula, research, and institutional frameworks. Accreditation criteria should include the institution's efforts to promote IKS.
- b. **Institutional Autonomy for IKS Programmes:** Grant academic institutions the autonomy to design IKS-based programs and courses, encouraging innovation and flexibility in curriculum design. Institutions should be incentivized to offer certificate and degree programs specializing in IKS.

#### *Internationalization of IKS*

- a. **Global Recognition of IKS:** Collaborate with international universities and research bodies to enhance the global visibility of Indian Knowledge Systems. Promote student exchange programs, international conferences, and joint research projects that involve IKS and its relevance to global issues.
- b. **Cross-Cultural Dialogues:** Encourage dialogues between Indian Knowledge Systems

and other global knowledge traditions to foster understanding, knowledge sharing, and intellectual growth.

The promotion and integration of Indian Knowledge Systems in education, research, and governance require strategic efforts across various domains, from curriculum development to public awareness. By adopting these recommendations, IKS can significantly contribute to creating a knowledge society that is rooted in India's rich intellectual heritage while being relevant to contemporary global challenges. This approach will foster a more holistic and sustainable model of education, research, and development, ensuring that traditional wisdom is preserved and adapted for future generations.

### Conclusion

The Indian Knowledge System (IKS) represents a vast and rich intellectual tradition that spans diverse fields such as science, philosophy, medicine, literature, art, and architecture. Its integration into modern education offers immense potential to foster holistic, interdisciplinary learning that not only preserves India's cultural heritage but also addresses contemporary challenges. By combining the best of ancient wisdom with modern scientific advancements, IKS promotes sustainable development, ethical leadership, and holistic well-being.

The initiatives to include IKS in the education system, as encouraged by the National Education Policy (NEP) 2020 and various regulatory bodies like AICTE and UGC, aim to foster a deeper understanding of India's intellectual legacy. Through the establishment of research centers, curriculum integration, and interdisciplinary studies, IKS is positioned to make meaningful contributions to fields such as healthcare, technology, ethics, and environmental sustainability.

While challenges remain, such as curriculum standardization, resources, and faculty training, the growing interest in IKS reflects its enduring relevance. As India moves toward a knowledge-based society, incorporating IKS will provide students, researchers, and policymakers with a balanced approach that respects tradition while embracing innovation.

In conclusion, the integration of the Indian Knowledge System into modern education not only preserves an invaluable cultural heritage but also

equips future generations with the tools to tackle global challenges through a lens of sustainability, ethics, and holistic development. By bridging ancient wisdom with contemporary knowledge, IKS can inspire transformative solutions for a more equitable and sustainable world.

### References and Readings

1. Mohan, B., R. (2020). *Indian Knowledge Systems: A New Paradigm in Education*, National Book Trust: New Delhi.
2. Radhakrishnan, S. (2011). *Indian Philosophy: A Critical Survey*, Oxford University Press: Delhi.
3. Vidyasagar, K., S. (2016). *Indian Knowledge Systems and Higher Education: Integrating Tradition with Modernity*, University of Hyderabad Press: Hyderabad.
4. Chakravarty, K. (2012). *Ancient Indian Knowledge Systems: Philosophy and Practice*, Academic Foundation: New Delhi.
5. Natarajan, M. (2017). *Indian Knowledge Systems: Foundations and Perspectives*, Sage Publications: New Delhi.

### Articles and Journals

1. Bhan, M., and Kumar, A. (2021). "Reviving the Indian Knowledge System: An Interdisciplinary Approach", *International Journal of Research in Education and Science*, 7(1), 22-34.
2. Kumar, S., and Gupta, R. (2020). "Integrating Indian Knowledge Systems in Higher Education: Challenges and Opportunities," *Journal of Indian Education*, 46(4), 47-60.
3. Srinivas, S. (2019). "Indian Knowledge System and the Modern Education System: A Critical Analysis," *Indian Journal of Educational Research*, 8(1), 123-134.
4. Desai, V. (2018). "The Role of Indian Knowledge Systems in Sustainable Development." *International Journal of Sustainable Development & World Ecology*, 25(3), 226-234.

### Government Reports and Guidelines

1. Govt of India (2020). National Education Policy- 2020, Ministry of Education, Government of India, New Delhi.
2. All India Council for Technical Education(2021). *Guidelines for Integrating Indian Knowledge Systems into Technical Education*, AICTE, New Delhi.
3. University Grants Commission (UGC). (2022). *Report on the Promotion of Indian Knowledge Systems in Higher Education*, UGC: New Delhi.

### Online Resources

1. Indian Knowledge Systems Portal: [IKS Portal](#) - An official government portal dedicated to the Indian Knowledge Systems, offering resources, research, and initiatives.
2. National Digital Library of India: NDLI - A digital repository of educational resources, including texts and research on Indian Knowledge Systems.
3. ResearchGate: Various articles and papers related to IKS are available on Research Gate. □

## Empowering Youth: The Path to a Developed *Bharat* by 2047

---

**Jagdeep Dhankhar, Hon'ble Vice President of India delivered the Convocation Address (Excerpts) at the first Convocation Ceremony at the Raja Mahendra Pratap Singh State University, Aligarh, Uttar Pradesh on October 21, 2024. He said, "You are the future leaders, you are the creators of positive change, driving economic, technological, and social progress. You have to be the change you believe in. Don't be swept by the change. Bring about the change you want as per your aptitude and attitude." Excerpts**

---

Friends, it is an honour to be present at this convocation and for a very special reason. It is named after Raja Mahendra Pratap Singh, a patriot, national hero and freedom fighter. Another very fascinating aspect is being in Brijbhoomi is always spiritually rewarding. My congratulations to all the graduating students, medalists their proud parents also and more importantly, my greetings and congratulations to the members of the faculty.

My young friends, your high academic qualifications are an asset to the country. In whatever field you work, and the number of fields is now increasing day by day, you will be part of India's developing growth story. This story of Bharat is full of promises. The next 25 years are with immense potential which you all are required to exploit.

Friends, the most important component of our youth with high qualifications like you are our spinal strength. Our national ambitions are well-defined. Our national ambition is well set out and that is to be a developed nation, develop Bharat by 2047.

Young minds are the most vital stakeholders in this journey. You will define this journey, you will fuel this journey and you will make everyone proud. You are the future leaders, you are the creators of positive change, driving economic, technological and social progress.

Our national ambitions are well defined, our national ambition is well set out, and that is to be a developed nation, developed part at 2047. Young minds are the most vital stakeholders in this journey, you will define this journey, you will fuel this journey and we will make everyone proud. You are the future leaders, you are the creators of positive change, driving economic, technological, and social progress. You have to be the change you believe in. Don't be swept by the change. Bring about the change you want as per your aptitude and attitude.

Friends, it is a testament to present governance that this university has emerged so well in such a short time, with the foundation stone being laid by our visionary Prime Minister just three years ago.

This achievement alongside exemplary law and order, highways, and infrastructure augur well for its northward progress and rise.

It is a historical fact - Civilizations survive by institutions and ordering their heroes. Imagine in the field of education, Nalanda, Takshashila and many more global beacon of knowledge and education. This university establishment is a step in the right direction to befittingly immortalise Raja Mahendra Pratap Singh, a hero like others who ought to have been given space in our independence movement history, he should have occupied a huge space. In 1915, he established first provisional Government of India in Kabul which was two decades before the Britishers could even imagine the 1935 Government of India Act. It was a very great attempt. It was a thought to proclaim freedom, which we got later on and he had the good occasion to be a Member of Parliament. We thrive in an independent environment today because of sacrifices made by heroes like him.

These inspiring stories of such great heroes unfortunately have had so far brief or no mention in our textbooks. A painful aberration is the history of independence was manipulated with credit being denied to those undeterred.

It is our bounden ordainment to make aware our youth of our real heroes of freedom struggle. The next generation of historians should ensure that the sacrifice of multitude of freedom fighters inspired this generation. It is soothing that in recent times, vigorously we are celebrating all over the country our unsung heroes or well-sung heroes.

Belated conferment of the highest civilian award to Bharat Ratna to Dr. B.R. Ambedkar in 1990, to Chaudhary Charan Singh and Karpooi Thakur in 2023 are steps in the right direction. I was privileged on both occasions to be in the theatre of parliament. In 1990 I was a Union Minister and now Vice President, Chairman Rajya Sabha. I feel blessed but a cause for concern is why it took us so long to recognise our heroes?

Similarly, very good developments have taken place recently. We celebrate 15th November Janjatiya

Gaurav Divas to pay tributes to Bhagwan Birsa Munda on his birth anniversary. A great tribal freedom fighter, know about him. You will be enthused, motivated, and inspired. In the prime of youth, he went away but left an indelible mark on our freedom movement struggle. The day is dedicated to the memory of brave tribal freedom fighters so that our coming generations and this generation know about their sacrifices, and about this country.

Similarly, another great hero who was denied rightful space. Netaji Subhash Chandra Bose, gifted with indomitable spirit and selfless service to the nation. The government has decided to celebrate his birthday on 23rd January every year as Prakram Diwas and rightly so. I was again privileged and honoured when the main function was held.

In Kolkata, I happened to be Governor of the state of West Bengal. The Hon'ble Prime Minister inaugurated this great day remembering one of the finest human beings, finest souls, and visionary who laid down everything, all comforts to serve the nation.

Friends, our youth must always remember the fortitude these people exhibited in the face of grave adversity, this will infuse in all of you a fervour for nationalism.

“शहीदों की चिताओं पर जुड़ेंगे हर बरस मेले।  
वतन पर मरनेवालों का यही बाकी निशाँ होगा।।  
कभी वह दिन भी आएगा जब अपना राज देखेंगे।  
जब अपनी ही जमीं होगी और अपना आसमाँ होगा।।”

यह आज चरितार्थ हो रहा है आजादी के लंबे समय बाद इसको हर पल महसूस किया जा रहा है हर दृष्टि से किया जा रहा है।

My young friends, I have adverted to some of such recent steps to remind you all that our commitment to nationalism should ever be unflinching and uppermost. राष्ट्र से ऊपर कुछ नहीं है। राष्ट्रवाद हमारा धर्म है, निजी हित या कोई भी हित हो राष्ट्रहित से ऊपर नहीं रख सकते यही हमारा संकल्प होना चाहिए, यही हमारी संस्कृति का निचोड़ है।

Raja Mahendra Pratap Singh was also a visionary educationist who foresaw the need for technical education establishing the Prem Mahavidyalaya.

Friends, history is proof of it. No country has excelled without being at the forefront of technological revolution. If we want to see Pax Indica becoming a reality, we must lead in technology.

We are living virtually in the fourth industrial revolution where information is key to all our activities,

from agriculture to education to communication. Everything is around communication these days. Technology is a game-changer.

In our country, it has affected very fortunately, much-needed, transparent, accountable governance, ease of service delivery, and accomplishment of the last in the row, getting benefits.

As we march towards *Viksit Bharat@2047*, driven by a knowledge economy, our goal should be to create institutions of excellence, rivalling the best in the world. Because this country had institutions of global excellence, and eminence, people from all over the planet swarmed to get enlightenment.

I appeal to industries and corporates to invest in India's educational ecosystem. Investment in education is an investment in your present, investment in your future, an investment for economic growth, an investment for peace, investment for harmony. This endeavour should be driven, now here is a word of caution by me. I can call it a caveat. We should never make education a commodity, we should never make education commerce. This endeavour, this enterprise, this spirit should not be driven by commodification and commercialisation of education but it should align with our traditional Gurukul system. गुरुकुल में क्या होता था कोई फीस नहीं होती थी, कोई रोक-टोक नहीं होती थी और यही कारण है कि भारत के संविधान निर्माता ने बहुत सोच समझकर जो 22 चित्र संविधान में रखे हैं आपसे अपील करूंगा उन चित्रों का आप अध्ययन कीजिए। आजकल सोशल मीडिया गूगल सब आपकी मदद करेगा उसमें जहां सिटीजनशिप है वहां गुरुकुल का चित्र है, शिक्षा को क्या इंपोर्टेंस दी गई है। They have to be crucibles of character formation, they have to inflame us with the spirit of commitment to our Bharat.

To those shaping curricula, those who are devising curricula, and the members of the faculty, I urge you to make the National Education Policy a success. The honourable Governor and myself have been associated at various stages in the evolution of the National Education Policy. Thousands of stakeholders' inputs have been considered. We have it after more than three decades, it presents a visionary roadmap for transforming our education system. It promotes multidisciplinary learning, skill development, and innovation. It does not need a great emphasis on degrees. I want every teacher, every professor, and every person associated with education to please go through National Education Policy. You can't implement it unless you understand it, you have to understand it with a mindset to implement it.

Our Bharat today, fortunately, and a great development for the world, is emerging as an intellectual powerhouse in terms of technology. My young friends, boys and girls, will know about it. We rank fifth in terms of patents filed. You know the importance of patents, you know their economic results. You can realise how it's a soft diplomatic weapon also and with a significant increase of 25% year-on-year growth, our annual growth in terms of filing patents is 25%.

In artificial intelligence, India with its dense human interaction and deep technological penetration is poised to lead data set creation. As a matter of fact, our digitisation, technological penetration, utilisation for service delivery have been accoladed by global institutions, the World Bank, that India is a role model when it comes to service delivery by digitisation but India's accomplishments in six years are normally not attainable even in more than four decades.

Friends, we are entering the *Amrit Kaal* of technological revolution. That has to be driven by young minds, ignited minds like yours. Be the change makers, lead innovation, and find Indian solutions to Indian problems and make them available also to the global fraternity.

To the graduating class of 2024, congratulations on your success. Be inspired by heroes like Radha Mahendra Pratap Singh, who placed national interest above everything else. Exploit the opportunities that the new Bharat presents, and use your education wisely and for the greater good. Friends, as you enter and step into the world, you will have challenges, you will have serious challenges, you might get some setbacks also all these are natural.

It will not be a dream entry for you, it will be fiercely competitive and it should be. Never fear failure. Any failure is a stepping stone to success, if you get a good idea in your mind, don't harbour it, act on it.

To the affiliated colleges and academics, my appeal is ensure your activities, and prepare graduates for this emerging technological world. Imbibe in them a spirit of nationalism.

It is no good, you may be brilliant, you may be technologically genius, you may be admired but if your attachment to nationalism is fragile.

कपास को जब काटते हैं तो धागा बनता है, तो थोड़ा भी मिस डायरेक्शन हो तो वापस कपास बन जाता है। Your efforts go in vain.

Friends, India, home to one-sixth of humanity, the oldest civilisation on the planet, with exponential economic surge. दुनिया का कोई भी देश 7.5% से 8%,

GDP ग्रोथ के साथ आगे नहीं बढ़ रहा है। आंखों से देख रहे हैं जिसका सपना लेते हुए भी डर लगता था मेरी उम्र के लोगों को। World class infrastructure of rail, road, connectivity, waterways, digitisation all over the country is happening in this nation.

It is time for our youth, now my special appeal to you, you are in silos. लगता है नौकरी सरकार की ही है लगता है नौकरियां कहां है थोड़ा सा देखोगे तो पता लगेगा की जो Basket of Opportunities हैं is enlarging. एक जानकारी के अनुसार सिर्फ 10: छात्रों को ही पता है कि कहां संभावनाएं हैं, 90% को नहीं पता है। Please come out of the silos.

चाणक्य ने कहा था "Education is the best friend, an educated person is respected everywhere." और स्वामी विवेकानंद जी ने कहा था "Arise, awake, and stop not until the goal is reached." that you should never forget

To those who are outgoing, stepping out, the cohort and the current students, my very best wishes. You couldn't be more lucky with an ecosystem and the ecosystem is that you can fully exploit your talent and potential to realise your dreams and aspirations.

To those who have degrees today, my one appeal, you are in a very distinguished category, you are the first alumni of this institution. You should take a place to be ever attached to this institution, be in connect with this institution, make annual contributions. The amount does not matter, financial contribution, and quantum are immaterial, and making a financial contribution is all important. Do it. You will find over the years, this will grow like a balloon and help students in need. This will be a great service to the field of education and your institution.

अंत में एक बात कहूंगा आपको सदैव सचेत रहने के लिए एक सिख दे रहा हूँ उसी को सदा याद रखना 'नायमात्मा बलहीनेन लभ्यः'

इसका अर्थ है अंग्रेजी में self realisation cannot be achieved by weak willed. हम रियलाइज करना चाहते हैं पर अगर weak willed हैं तो हम नहीं कर पाएंगे। so be strong willed, never be in fear of failure, never suffer from stress and tension because of the fear of failure. It is the earnestness and commitment in efforts that is all important and that was the lesson imparted by Lord Krishna to Arjun at Kurukshetra that should be guiding star for your future working.

I am honoured to deliver the first lecture, the first convocation address. It will ever be etched in my memory. It is an occasion for me to pay tribute to one of the greatest sons of this soil. □

---

---

## CAMPUS NEWS

---

---

### **Seminar on Sustainable Growth Strategies for Micro, Small, and Medium Enterprises**

The one-day State Level Seminar on ‘Sustainable Growth Strategies for Micro, Small, and Medium Enterprises (MSMEs) in India: Challenges and Opportunities’ was jointly organised by the Department of Economics and the Department of B. Com (CA), GTN Arts College, Dindigul on October 09, 2024. About 270 participants including students, faculty, industry professionals, and MSME owners attended the event. The event aimed to explore government support, job creation, inclusive growth, financing, and investment opportunities for Micro, Small, and Medium Enterprises (MSMEs). The event commenced with a Welcome Address by the Convener, Dr. P Ravichandran, Associate Professor and Head, Department of Economics. He briefed the gathering on the theme of the seminar and its relevance in the current economic scenario. Dr. S Arun, Assistant Professor, Economics was the Coordinator of the event.

Dr. S Saravanan, Principal, GTN Arts College delivered the Presidential Address emphasizing the importance of MSMEs in driving economic sustainability and growth. He discussed how MSMEs contribute significantly to job creation and economic inclusiveness, especially in rural and semi-urban areas. The event was formally inaugurated by Lion Dr. K Rethinam, College Secretary who acknowledged the theme as both timely and essential, given the rapid shifts in the Indian business ecosystem. He stressed the importance of supporting MSMEs through policy frameworks and financial assistance.

The Director, Dr. Durai Rethinam, Academic Director, Dr. N Markkandeyan, and Vice Principal (SSC), Dr. U Natarajan felicitated the event commending the organizers for addressing a critical theme that aligns with national economic objectives.

The session on ‘Government Policies and Support for MSMEs’ was led by Ms S Vijayashanthi, Financial Counselor, Financial Literacy Centre, Canada Bank. Her session provided an in-depth analysis of the various policies and programmes initiated by the Government of India to promote and support MSMEs. She covered the Prime Minister’s Employment Generation Programme (PMEGP), Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE), and MSME

Champions Scheme among others. Ms Vijayashanthi also highlighted the importance of technology upgradation and innovation in ensuring the sustainable growth of MSMEs. She urged the participants to stay informed about the changing policy landscape and make the most of the government’s support initiatives. The session showed the comprehensive coverage of both central and state-level schemes, and the practical insights offered regarding how MSMEs can access these benefits.

The session on ‘Role of MSMEs in Job Creation and Inclusive Growth’ was presented by Dr. J Suhashini, Assistant Professor, Management Studies, GTN Arts College. She focused on the integral role of MSMEs in creating employment opportunities across various sectors of the economy. Dr. Suhashini emphasized that MSMEs are the backbone of the Indian economy, employing over 120 million people and contributing approximately 30% of the nation’s GDP. She explained how MSMEs create a ripple effect in both urban and rural economies, generating jobs not just directly but through supply chain linkages as well. She also delved into the potential of MSMEs to foster inclusive growth, as they can employ marginalized communities, women, and individuals in underserved areas. Her session underscored the need for skill development, entrepreneurship training, and improved market access to help MSMEs continue playing this crucial role. She also highlighted case studies of successful MSMEs that have driven both job creation and community development.

Ms R Uma Chandrika, Assistant Director, MSME Branch, Development and Facilitation Branch, Madurai led the session on ‘Financing and Investment Opportunities for MSMEs’. Ms Chandrika’s session provided a detailed overview of the financing options available to MSMEs, ranging from traditional bank loans to modern financial instruments like venture capital, angel investors, and crowdfunding platforms. She explained the various funding schemes under SIDBI (Small Industries Development Bank of India), MUDRA loans, and sector-specific financial aids aimed at promoting MSME growth. A key highlight of her lecture was her focus on the practical steps MSME owners must take to secure financing, such as improving credit scores, preparing sound business plans, and leveraging collateral-free loans. She

encouraged participants to actively seek out investment opportunities and make use of government initiatives designed to ease access to credit. She also discussed the need for financial literacy among MSME owners to effectively manage their funding and ensure sustainable growth. Her emphasis on golden opportunities available through government schemes resonated with the audience, many of whom were entrepreneurs and students aspiring to enter the MSME sector.

Dr. S Manimaheswaran, Assistant Professor and Head, B. Com (CA) delivered the Vote of Thanks. He expressed his gratitude to the guest speakers for sharing their knowledge and insights and thanked the participants for their active engagement. The seminar successfully concluded with a commitment to supporting the growth and sustainability of MSMEs through innovative strategies, government policies, and financial planning.

### **National Conference on Mathematics Education**

A three-day National Conference on ‘Mathematics Education’ is being organised by the Department of Education in Science and Mathematics, National Council of Educational Research and Training, Sri Aurobindo Marg, New Delhi on December 20-22, 2024. This conference is being held by NCERT to observe the National Mathematics Day to mark the birth anniversary of the legendary Indian mathematician Srinivasa Ramanujan. The Mathematicians, Educationists, and Teachers may participate in the event to share their ideas and research. The focus is on cutting-edge approaches to teaching mathematics, including the role of Augmented Reality (AR) and Virtual Reality (VR) in enhancing the learning experience. The event also delves into the future of work in mathematics, including the impact of Artificial Intelligence and Machine Learning, Coding so on. It emphasizes the development of mathematical thinking, reasoning, and communication skills. It encourages hands-on activities, projects, and real-world applications to make mathematics learning more engaging and relevant. Additionally, its aim is to equip students with the mathematical skills and knowledge required for the contemporary Indian context and to showcase innovative approaches, best practices and reforms in mathematics education. The Themes of the Event are:

#### ***Emerging Trends in Mathematics Education***

- Artificial Intelligence in Mathematics Education.
- Virtual and Augmented Reality in Mathematics Education.

- Personalized Learning in Mathematics Using AI-powered Tools.
- Machine Learning in Mathematics Education.

#### ***Inclusive, Equitable and Accessible Mathematics Education***

- Supporting Students with Special Needs in Mathematics.
- Culturally Responsive Mathematics Education.
- Mathematics Education for Gifted Students.
- Gender Equity in Mathematics Education.

#### ***Technology-Enhanced Mathematics Learning***

- Online and Blended Learning in Mathematics Education.
- Mathematics Learning through Mobile Devices.
- Gamification in Mathematics Education.
- Flipped Classroom Approach in Mathematics.
- Digital Resources for Mathematics Learning.

#### ***Mathematics Curriculum and Pedagogy***

- Recent Development in Mathematics in Light of NEP- 2020 and NCF-SE 2023.
- Analysis / Impact of new NCERT textbooks as per NEP- 2020 and NCF-SE 2023.
- Language and Mathematics.
- Classroom Discourse and Mathematics Learning.
- Metacognition and Mathematics Pedagogy.

#### ***Assessment and Evaluation in Mathematics Education***

- New Ideas on Assessments in Mathematics Education.
- Technology-enhanced Assessment in Mathematics.
- Competency-based Assessment in Mathematics.
- Challenges in Assessment.

#### ***Teacher Professional Development in Mathematics Education***

- Teacher Training in Mathematics Education for the 21<sup>st</sup> Century.
- Collaborative Professional Development in Mathematics Education.
- Teacher Initiative and Leadership in Mathematics.

#### ***Mathematics Education for the Future***

- Preparing Students for the Future in Mathematics.
- Challenges of Students in Mathematics Career Progression.
- Role of Mathematics Education for Sustainable Development.
- Coding.

### ***Mathematics Education in the 21<sup>st</sup> Century***

- Dialogues in Mathematics Classroom
- Collaboration in Mathematics Education
- Critical Thinking and Creativity in Mathematics

### ***Popularisation of Mathematics***

- Mathematics kit, puzzles, toys, and games.
- Mathematics Storybooks and children's literature.
- Everyday Mathematics.
- Mathematics Club, Societies, Organisations.
- Mathematics Magazines, Newsletters, Journals.

### ***Indian Heritage of Mathematics Education***

- Indian Knowledge System of Mathematics.
- Ancient Mathematics in India.
- Vedic mathematics.
- Ethno mathematics.
- Incorporating Indigenous Mathematics Knowledge in Classrooms.

### ***Challenges related to Mathematics Education***

- Students' Struggles in Learning Mathematics.
- Social and Psychological Barriers in Mathematics Learning.
- Issues, Concerns and Reforms in School Mathematics.
- Instructional Problems in Mathematics Education.

### ***Innovative Practices in Mathematics Education***

- Best Practices in
  - i. Early Childhood/ Foundational Stage.
  - ii. Preparatory Stage.
  - iii. Middle Stage.
  - iv. Secondary Education.
  - v. Teacher Education.

### ***Interdisciplinary Approaches in Mathematics Education***

- Integrating Mathematics with Science and Technology.
- Mathematics and Humanities: A Collaborative Approach.
- Project-Based Learning in Mathematics.
- Mathematics and Environmental Studies.
- Psychology of Mathematics.

### ***Lifelong Learning and Mathematics***

- Mathematics for Adult Education.
- Community-Based Mathematics Learning.
- Mathematics for Vocational Education.
- Lifelong Skills through Mathematics Education.

For further details, contact Convener, Prof. T P Sarma, Department of Education in Science and Mathematics, National Council of Educational

Research and Training, Sri Aurobindo Marg, New Delhi-110016, Mobile No: 09289967362, E-mail: [mathconferencencert24@gmail.com](mailto:mathconferencencert24@gmail.com). For updates, log on to: [www.ncert.nic.in/National\\_Conference\\_Math](http://www.ncert.nic.in/National_Conference_Math).

### **All India Sociological Conference on Sociology, Development and Democracy**

A three-day All India Sociological Conference on 'Sociology, Development and Democracy' is being organised by the BML Munjal University (BMU), Gurugram, Haryana from December 22-24, 2024. The sociologists, professors, early career scholars, practitioners, research scholars and students may participate in the event.

Sociology, development and democracy are historically and conceptually linked. It was in a fast-changing world where industrial capitalism transformed everyday lives that the sociological perspective emerged. As the nature of work and homes changed, the sacred questioned, established authorities and divinely ordained knowledge interrogated that the social sciences and sociology arose as new forms of disciplinary inquiry. New methods of investigation of the society arose that sought evidence-based knowledge that relied on explicitly stated theories, critical methodologies, and robust techniques of empirical observation. This knowledge was used to understand structural issues such as inequalities, and experiences such as alienation and estrangement. As we reach the end of the first quarter of the 21<sup>st</sup> century, societies face a whole new set of challenges, which yet again affect our homes and work while questioning the very efficacy and legitimacy of sociological knowledge. The themes of the event are:

- Democracy and Knowledge.
- Role of Social Sciences in the Contemporary Context.
- Development: The Rural and Urban.
- Development, Democracy and Religiosity.
- Development, and Technology.
- Family and Gender.
- Migration and Displacements.
- Development, Climate, and Democracy.
- Social Movements, Development, and the Youth.
- Childhood and Global Development.

For further details, contact Organising Secretary, School of Liberal Studies, BML Munjal University, Gurugram, Haryana- 123413, Office Contact No: 011-26132510, Email: [societyinsoso@gmail.com](mailto:societyinsoso@gmail.com). For updates, log on to: <https://www.bmu.edu.in/iss-conference/index.html> □

---

---

# THESES OF THE MONTH

---

---

## SCIENCE & TECHNOLOGY

A List of doctoral theses accepted by Indian Universities  
(Notifications received in AIU during the month of August-September, 2024)

### AGRICULTURAL & VETERINARY SCIENCES

#### Entomology

1. Shinde, Shriram Tukaram. **Development and Evaluation of Mulberry silkworm hybrids.** (Dr. C B Latpate), Department of Agricultural Entomology, Vasanttrao Naik Marathwada Agricultural University, Parbhani.

#### Microbiology

1. Samal, D P Krishna. **Assessment of potential phosphate solubilizing microbes isolated from rice fields of Coastal Odisha: Implications for sustainable agricultural evolution.** (Prof. Lala Behari Sukla), Department of Microbiology, Siksha O Anusandhan University, Bhubaneswar.

#### Soil Science

1. Ranjan, Rahul. **Effect of different nutrient management on mung bean (*Vigna Radiata L*) varieties in Central Plain Zone of Uttar Pradesh.** (Dr. Raghvendra Singh), Faculty of Agricultural Sciences and Allied Industries, Rama University, Kanpur.

### BIOLOGICAL SCIENCES

#### Biochemistry

1. Manpreet Kaur. **Genetic variants of THRβ and SECISBP2 (SBP2) genes and their association with thyroid disorders.** (Dr. Ranjan Gupta), Faculty of Biological Sciences, Kurukshetra University, Kurukshetra.

#### Biotechnology

1. Jena, Bhumika. **Therapeutic prospective of biogenic Ag nano systems for healing of methicillin-resistant *Staphylococcus Aureus* infected wounds.** (Dr. Amrita Mishra and Dr. C S Lundborg), Department of Biotechnology, Kalinga Institute of Industrial Technology, Bhubaneswar.
2. Muduli, Kartik. **Deciphering the role of Estrogen-Related Receptor  $\alpha$  (ERR $\alpha$ ) in the maintenance and self-renewal of breast cancer stem cells.** (Dr. Selvakumar Elangovan), Department of Biotechnology, Kalinga Institute of Industrial Technology, Bhubaneswar.

3. Rout, Usha Kiran. **Study on SARS-COV-2 viral shedding, virus mediated immune responses and the effect of the infection on oral microbiome dysbiosis in humans.** (Dr. Debdutta Bhattacharya and Dr. Chanakya Nath Kundu), Department of Biotechnology, Kalinga Institute of Industrial Technology, Bhubaneswar.
4. Sinha, Manish Kumar. **Identification of line specific biomarkers for high fertility in crossbred bulls.** (Dr. Aranganathan V), Department of Biotechnology, Jain University, Bangalore.
5. Swathi, D. **Elucidation of sperm-enriched biological processes and their candidate genes regulating fertility in Murrah buffalo.** (Dr. S Selvaraju), Department of Biotechnology, Jain University, Bangalore.
6. Vimi, Kshetrimayum. ***Paris Polyphylla* a dynamic herb for treating diabetes and risk factors associated with diabetes.** (Dr. Nanaocha Sharma), Department of Biotechnology, Kalinga Institute of Industrial Technology, Bhubaneswar.

#### Life Science

1. Anand, Loveleena Kour. **Combatting depression by targeting BDNF-TrkB axis using small molecule/s.** (Dr. Fayaz Ahmed Malik), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
2. Andrabi, Nusrit Iqbal. **Exploring the anti-inflammatory potential of Koenimbine and its novel semi-synthetic derivatives.** (Dr. Zabeer Ahmed), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
3. Bhodiwal, Shweta. **Exploring *Lantana camara L* for making handmade paper.** (Dr. Reenu Aggarwal and Dr. Sunita Chauhan), Department of Botany, IIS University, Jaipur.
4. Jangid, Ritu. **Herb-Drug interaction study between oral antidiabetic drug (Repaglinde) and *Prosopis Cineraria*.** (Dr. Sreemoyee Chatterjee), Department of Microbiology & Biotechnology, IIS University, Jaipur.
5. Krishna, Tirunavalli Satya. **Investigating the therapeutic potential of dehydrozingerone & sesamol against interstitial lung disorders.** (Dr. A Sai Balaji and Dr. Sistla Ramakrishna), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

6. Manoj Kumar. **Isolation, screening, production and purification of bacterial cellulose membranes with its potential applications in health care.** (Dr. Saurabh Saran), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
7. Meghana, A. **Understanding the role of shuttling INPP4A in pulmonary fibrosis.** (Dr. Anurag Agrawal), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
8. Parveen, Shahnaz. **Investigation on anticancer potential of selected alkaloids by employing molecular and cell target based studies.** (Dr. Suaib Luqman), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
9. Rena. **Optimization of greenfuel (Biohythane) production through co-digestion of rice straw, potato peel and iron as an additive using anaerobic digestion.** (Dr. Sunil Kumar), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

#### Zoology

1. Najar, Zakir Hussain. **Diet analysis and habitat use of sympatric wild Canids (Mammalia: Canidae) in Hirpora Wildlife Sanctuary Kashmir.** (Dr. Bilal Ahmad Bhat), Department of Zoology, University of Kashmir, Srinagar.

### EARTH SYSTEM SCIENCES

#### Geology

1. Shastri, Arpan. **Estimation of land subsidence in selected Indian provinces and deformation related to fault slip in Northeast India using interferometric synthetic aperture radar.** (Dr. Bhagwan Singh Chaudhary and Dr. K M Sreejith), Department of Applied Geophysics, Kurukshetra University, Kurukshetra.
2. Subhash. **Sedimentology of the Saraswati River Channel in Yamuna Nagar and Kurukshetra Districts of Haryana, India.** (Dr. A R Chaudhri), Department of Applied Geology, Kurukshetra University, Kurukshetra.

### ENGINEERING SCIENCES

#### Aerospace Engineering

1. Paramesh, Thimmireddigari. **An investigation on aerodynamic characteristics of tab controlled axisymmetric and asymmetric supersonic jets.** (Dr. Tamal Jana), Department of Aerospace Engineering, Jain University, Bangalore.
2. Vishwanath, K S. **Computational studies of composite laminates with single and multiple embedded delaminations by cohesive surface approach.** (Prof. B Dattaguru), Department of Department of Aerospace Engineering, Jain University, Bangalore.

#### Civil Engineering

1. Sasmita, Sushree. **Study of sources, climatology and health risks to aerosols over Bhubaneswar.** (Dr. Dudam Bharath Kumar), Department of Civil Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
2. Sikder, Ankita. **Utilization of sugarcane bagasse ash in cement and geopolymer concrete.** (Dr. Purnachandra Saha), Department of Civil Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.

#### Computer Science & Engineering

1. Dhumapati, Raghu. **A paradigm for detection of Covid-19 from 2D/3D medical imaging using deep learning techniques.** (Dr. Hrudaya Kumar Tripathy), Department of Computer Science & Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
2. Jain, Sweta Vinodkumar. **A framework for diagnosis of autism spectrum disorder using machine learning.** (Dr. Hrudaya Kumar Tripathy), Department of Computer Science & Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
3. Mohapatra, Pratyush Ranjan. **Hybrid machine learning techniques for improving stock market price prediction models.** (Dr. Santosh Kumar Swain Dr. Ajaya Kumar Parida), Department of Computer Science & Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
4. Mondal, Avijit. **Advancements in healthcare IT infrastructure: Innovations for secure, efficient and real-time healthcare delivery.** (Dr. Pinaki Sankar Chatterjee), Department of Computer Science & Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
5. Naidu, Devishree Venkatro. **Efficient authentication mechanism for IoT-Enabled architecture over cloud and LoRaWAN.** (Dr. Niranjan Kumar Ray), Department of Computer Science & Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
6. Pardhi, Prafulla Ramesh Rao. **Threat analysis, assessment, and security solutions for smart devices.** (Dr. Jitendra Kumar Rout and Dr. Niranjan Kumar Ray), Department of Computer Science & Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
7. Patsariya, Mohan. **Design of trusted routing scheme using node capability in mobile ad-hoc network.** (Dr. Anand Rajavat), Department of Computer Science & Engineering, Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore.

8. Rautaray, Pravat Kumar. **Medical image detection using deep learning on application of Internet of Things (IoT)**. (Prof. Binod Kumar Pattanayak and Prof. Mihir Narayan Mohanty), Department of Computer Science & Engineering, Siksha O Anusandhan University, Bhubaneswar.
9. Sowmya, M S. **Kannada text summarization assimilating desirable natural language processing approaches**. (Dr. Panduranga Rao M V), Department of Computer Science & Engineering, Jain University, Bangalore.
9. Rosalin. **Development and evaluation of efficient adaptive signal processing algorithms for sparse systems**. (Dr.Nirmal Kumar Rout and Dr. Debi Prasad Das), Department of Electronic Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
10. Sahu, Jayanta Kumar. **Some studies on performance enhancement of solar PV system by using different intelligent MPPT techniques**. (Dr.Babita Panda and Dr. Sudhakar Sahu), Department of Electrical Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.

#### Electrical & Electronics Engineering

1. Alosebai, Muhannad Drak. **Development of control strategy for DSTATCOM Device to improve the Power Quality in Smart Grids**. (Dr. Kishore Kumar Pedapenki), Department of Electrical Engineering, Jain University, Bangalore.
2. Boddu, Ramesh. **Design of microstrip filtering antennas using defected microstrip structures for miniature wireless device**. (Dr. Jibendu Sekhar Roy and Dr. Arindam Deb), Department of Electronic Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
3. Marulasiddappa, H B. **Design and development of an intelligent controller based DTC for PMSM drives in an electric vehicle**. (Dr. Pushparajesh V), Department of Electrical Engineering, Jain University, Bangalore.
4. Mishra, Swati Smaranika. **Application of meta-heuristic techniques in multi area hybrid power system for load frequency control**. (Dr. Chitrakleha Jena), Department of Electrical Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
5. Nandish, B M. **Design and Simulation of Intelligent IoT based system for improving micro grid efficiency**. (Dr. Pushparajesh V), Department of Electrical Engineering, Jain University, Bangalore.
6. Patnaik, Ansuman. **Development of adaptive signal processing algorithms for identification of nonlinear systems**. (Dr. Sarita Nanda), Department of Electrical Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
7. Pattnaik, Asmita. **Advancements in FinFET design: Enhanced performance for diverse applications**. (Dr. Sushanta Kumar Mohapatra), Department of Electrical & Electronics Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
8. Ramavath, Srinivas. **Theoretical analysis of novel companding schemes for PAPR reduction of FBMC system**. (Dr. Umesh Chandra Samal and Dr. Prasanta Kumar Patra), Department of Electrical Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
11. Upadhyay, Nirali VipulKumar. **Integrated protection strategies with improved anti-islanding protection scheme for distributed generation systems**. (Dr. Sweta Shah), Department of Electrical Engineering, Indus University, Ahmedabad.
12. Yadav, Arpit. **Efficient lower computational complexity VLSI architecture using machine learning algorithms**. (Dr. Swapnil Jain), Department of Electronics Engineering, Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore.

#### Energy Studies

1. Beere, Hemanth Kumar. **Design and optimization of transition metals based composites as high performance electrocatalysts in fuel cells and as electrodes in Li-ion batteries**. (Dr. Debasis Ghosh and Prof. S K Nataraj), Department of Nano Technology, Jain University, Bangalore.
2. D'Souza, Glenita Bridget. **Exploring new design strategy for functionalizing membranes and aerogels for water treatment applications**. (Prof. S K Nataraj), Department of Nano Technology, Jain University, Bangalore.

#### Mechanical Engineering

1. Behera, Asit. **Investigation on physical, thermo-mechanical, tribological characteristics and machinability studies of heat treated novel nimonic alloy**. (Dr. Ashok Kumar Sahoo and Dr.Siba Sankar Mahapatra), Department of Mechanical Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
2. Khatai, Saswat. **Experimental investigation on machinability and sustainability assessment during hard turning using nano-cutting fluid assisted MQL environments**. (Dr. Ashok Kumar Sahoo and Dr. Ramanuj Kumar), Department of Mechanical Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.

- Panda, Smita Rani. **Numerical and experimental performance analysis of novel dental implant nanocomposites.** (Dr. Bharat Chandra Routara and Dr. Shanta Chakrabarty), Department of Mechanical Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
- Raviteja, Tankala. **Fabrication and investigation of microstructural, mechanical and machining characteristics of Al-Mg-Zn-based functionally graded materials.** (Dr. B. Surekha Dr. Nitin Sharma), Department of Mechanical Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
- Sapariya, Dharmendra Damjibhai. **Experimental investigation for the effect of fluidization parameters on biomass gasification using bubbling fluidized bed gasification technique.** (Dr. Umang Patdiwala), Department of Mechanical Engineering, Indus University, Ahmedabad.

#### Textile & Apparel Design

- Agrawal, Yogita. **Fabrication of textile based wound dressing with natural antimicrobial agents for topical application.** (Dr. V R Sampath and Dr. Shweta Agrawal), Department of Textile Technology, Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore.

#### MATHEMATICAL SCIENCES

##### Mathematics

- Rath, Chinmoy. **Numerical and analytical study of flow problems on Newtonian and non-Newtonian fluids with heat and mass transfer.** (Dr. Anita Nayak), Department of Mathematics, Kalinga Institute of Industrial Technology, Bhubaneswar.
- Ray, Pranjal Kumar. **A study on cosmological models in five dimensional Kaluza-Klein space time.** (Dr. Rajshekhar Roy Baruah), Department of Mathematical Sciences, Bodoland University, Kokrajhar.
- Shalini. **Investigation and discussion on intriguing properties of fixed point theorem.** (Dr. Arvind Kumar Sah), Department of Mathematics, T M Bhagalpur University, Bhagalpur.
- Siddiqua, Salma. **A mathematical study to determine the effects of water pollution and its impact on the aquatic environment.** (Dr. Anita Chaturvedi), Department of Mathematics, Jain University, Bangalore.

#### MEDICAL SCIENCES

##### Anatomy

- Raman, Ramendra Kumar. **Study of thyroid gland and its dysfunction with special reference to musculoskeletal manifestations.** (Dr. Biswa Bhusan Mohanty), Department of Anatomy, Siksha O Anusandhan University, Bhubaneswar.

#### Forensic Science

- Saxena, Geetika. **Psychological profile of delinquent behavior among the Juvenile population of Delhi Region.** (Dr. Kapil Kumar), Department of Forensic Science, Gujarat University, Ahmedabad.

#### Medicine

- Ashutosh Kumar. **Elaborative study on the case of migraine to explore its homoeopathic remedies through reportorial approach.** (Dr. Sunil Kumar), Department of Homeopathy, Tanta University, Sri Ganganagar.
- Bansal, Shubham. **A brief study to understand the practical essence of clinical distinctive cross references with their respective group of interconnected symptoms of rubrics of mind section of Kent repertory in homoeopathic medicine.** (Dr. Rajinder Girdhar), Department of Homeopathy, Tanta University, Sri Ganganagar.
- Sutaria, Shreyansh Pragneshbhai. **Dental age estimation by pulp/tooth volume: A Cone Beam Computed Tomography (CBCT) study.** (Dr. Bhavin Dudhia), Department of Oral Medicine and Radiology, Gujarat University, Ahmedabad.

#### Microbiology

- Srivastava, Neha. **Correlation of biofilm formation and virulence gene (filmH & aer) of uropathogenic E coli isolated from catheterised patients.** (Dr. R Sujatha), Faculty of Medical Sciences, Rama University, Kanpur.

#### Pharmaceutical Science

- Jahan, Kousar. **Computational synthetic and biological studies on imidazo [1,2-a] pyridine derivatives.** (Prof. P V Bharatam), Department of Medicinal Chemistry, National Institute of Pharmaceutical Education and Research, Mohali.

#### PHYSICAL SCIENCES

##### Chemistry

- Bhawar, Ramesh Raosaheb. **Heterogeneous rare earth metal-catalyzed organoboranes syntheses.** (Dr. Shubhankar Kumar Bose), Department of Chemistry, Jain University, Bangalore.
- Chanda, Nageshwarrao. **Novel dye sensitized Pt-TiO<sub>2</sub> photocatalyst: Design, characterization and applications for H<sub>2</sub>O splitting and CO<sub>2</sub> conversion to CH<sub>3</sub>OH.** (Dr. B Sreedhar Ujjwal Pal), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

3. Damodar, Enagandhula. **Development of annulation reactions towards functionalized spirooxindoles, benzothiazino-pyrroles and benzoyl-pyrroles.** (Dr. Ch Raji Reddy and Dr. Prathama S Manikar), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
  4. Ekta. **Synthetic and biological studies of some novel auroenes as anticancer agents.** (Dr. Suresh Kumar), Department of Chemistry, Kurukshetra University, Kurukshetra.
  5. Kannuri, Rajeswari. **Synthesis and biological evaluation of newer Coumarin, Thiazine and Diazepine derivatives.** (Dr. V Amarnath), Department of Chemistry, Chaitanya (Deemed To Be University), Himayatnagar, Hyderabad.
  6. Laxmanrao, Lokhande Priya. **Sustainable synthesis of carboxylic acids through catalytic oxidation of furan derivatives over noble and non-noble metal-based catalysts.** (Dr. Paresh Laaxmikant Dhepe), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
  7. Maraddi, Ashok Shrishail. **Design and preparation of functional materials and membranes for wastewater treatment.** (Prof. S K Nataraj), Department of Chemistry, Jain University, Bangalore.
  8. Nagaraju, Ashwini. **Synthesis of some new five membered heterocyclic derivatives and their anticancer evaluation.** (Prof. M Ravinder), Department of Chemistry, Chaitanya (Deemed To Be University), Himayatnagar, Hyderabad.
  9. Pal, Rohan Singh. **Development of nanostructured catalysts for oxidative coupling of methane to olefins.** (Dr. Rajaram Bal and Dr. V V D N Prasad), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
  10. Pal, Shibam. **Structure property correlation of novel photocurable polymers for light-based 3D printing applications.** (Dr. S K Asha), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
  11. Reddy, Sudula Sudharshan. **Synthesis, characterization and biological activity of some novel heterocycle compounds.** (Prof. E Jagadeesh Kumar), Department of Chemistry, Chaitanya (Deemed To Be University), Himayatnagar, Hyderabad.
  12. Renu Devi. **Cellulose derivatives, alginate and pectin based drug delivery systems for some non-steroidal anti-inflammatory drugs.** (Dr. Neera Raghav), Department of Chemistry, Kurukshetra University, Kurukshetra.
  13. Seema Rani. **Thermal, mechanical and biodegradation studies of natural fiber reinforced polymer composites.** (Dr. Sanjiv Arora and Dr. Neera Raghav), Department of Chemistry, Kurukshetra University, Kurukshetra.
  14. Shamili, Sriramoju. **Synthesis and biological evaluation of some novel pyran derivatives.** (Prof. S Kavitha), Department of Chemistry, Chaitanya (Deemed To Be University), Himayatnagar, Hyderabad.
  15. Sheetal. **Methodology development for transition metal-catalyzed amidation reactions and heterocycles synthesis.** (Dr. Pralay Das), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
  16. Sreerama, Rakesh. **Click chemistry-synthesis and biological evaluation of some novel 1,2,3-triazole derivatives.** (Prof. S Narsimha), Department of Chemistry, Chaitanya (Deemed To Be University), Himayatnagar, Hyderabad.
  17. Sucharitha, E Ramya. **Synthesis and biological evaluation of novel fused 1,2,3-triazoles.** (Prof. S Narsimha), Department of Chemistry, Chaitanya (Deemed To Be University), Himayatnagar, Hyderabad.
  18. Theodore, Cynthia E. **Synthesis, characterisation of novel glutarimide and hydantoin derivatives and their biological activity.** (Dr. S B Benaka Prasad), Department of Chemistry, Jain University, Bangalore.
  19. Tripathy, Rashmi Rekha. **Study of catecholase activities of some first-row transition metal complexes derived from Schiff base ligands.** (Dr. Sohini Sarkar), Department of Chemistry, Kalinga Institute of Industrial Technology, Bhubaneswar.
- Physics**
1. Gupta, Swechchha. **Investigation of dielectric properties of gluten free food grains, spices and nuts at microwave frequencies.** (Dr. Nidhi Bhargava and Dr. Ritu Jain), Department of Physics, IIS University, Jaipur.
  2. Patra, Abhinandan. **Tuning the synergistic effects of emergent two - dimensional materials for high performance energy storage and conversion application.** (Prof. Chandra Sekhar Rout), Department of Physics, Jain University, Bangalore.
  3. Siva Kumar, B. **Investigations on structure and photoluminescence properties of rare earth ions (Dy<sup>3+</sup>, Eu<sup>3+</sup> & Sm<sup>3+</sup>) doped KMgBo<sub>3</sub> phosphors for led applications.** (Dr. H Umamahesvari and Dr. K Thyagarajan), Department of Physics, Jawaharlal Nehru Technological University Anantapur, Ananthapuram. □



# COEP Technological University Pune

(A Unitary Technological University of Govt. of Maharashtra)  
(NAAC Accreditation with A+)

No:COEPTech/Est-1/Advt/2024/

Date : 14/10/2024

Applications are invited from the eligible candidates for the following Statutory Posts on the establishment of the COEP Technological University Pune.

Sr. No.	Name of the Post	No. of Posts	Category
1	Registrar	01	Unreserved (Open)
2	Finance and Accounts Officer	01	Unreserved (Open)

Post prescribes, online application form link, details of qualifications, experience, requisite fees, other rules and regulations etc. are available on the University website <http://www.coeptech.ac.in/> under the **Recruitment** tab.

The period for submission of application forms for the above posts is from **15/10/2024 to 08/11/2024, up to 5.00 PM**

Sd/-

Place : Pune, Date : 14/10/2024

Registrar



## Apeejay Saraswati P.G. College for Girls

Charkhi Dadri - 127306

**NAAC Accredited B+ Grade (Affiliated to Ch. B.L. University, Bhiwani)**

Ph.: 01250-220226 (Office), E-mail: [aserf@apeejay.edu](mailto:aserf@apeejay.edu)

Applications are invited for Government Aided Private College for the post of

### LADY PRINCIPAL

Qualifications, Age, and Pay Scale as per the latest UGC/Higher Education Department (Haryana)/CBL University, Bhiwani norms.

Completed application form (along with attested copies of all certificates and testimonials from Matriculation onwards) should be sent to the office of the President at Apeejay Stya Block, APJ School Road, Sheikh Sarai, Phase 1, New Delhi 110017 on or before 15<sup>th</sup> November 2024. Additionally, please provide a copy of your application via email to the address provided above.

The application form can be downloaded from the college website [www.apeejay.edu/saraswati](http://www.apeejay.edu/saraswati)

President





## Entrepreneurship Development Institute of India

Ahmedabad

announces

# The Sixteenth Biennial Conference on Entrepreneurship February 26-28, 2025

## CALL FOR PAPERS

Entrepreneurship Development Institute of India (EDI) has been organizing Biennial Conferences on Entrepreneurship since 1994. These conferences, organised under the aegis of Centre for Research in Entrepreneurship Education and Development (CREED) (setup by EDI), provide a forum for researchers, educators, and practitioners to share their research findings and experiences in entrepreneurship development.

The Sixteenth Biennial Conference on Entrepreneurship invites researchers, scholars, educators, professionals and practitioners to contribute papers and reports in the field of entrepreneurship theory and practice.

### Indicative themes :

- Cognitive and Behavioral Aspects of Entrepreneurship
- Trans-generational Enterprises (Family Business)
- Entrepreneurship Policy and Governance
- Entrepreneurship Education
- Academic Entrepreneurship and the Craft of Teaching
- Capacity Development and Lifelong Learning
- Start-ups, Incubators, Accelerators and New Business Development
- Corporate Entrepreneurship and Intrapreneurship
- Women Entrepreneurship
- Social Innovations and Entrepreneurship
- Entrepreneurship and Society
- Environmental, Social and Governance (ESG) and Entrepreneurialism
- Inclusive Entrepreneurship
- Innovation, Emerging Technologies, Appropriate Technologies, and Entrepreneurship for Achieving Sustainable Development Goals
- Technology Entrepreneurship, Digital Entrepreneurship and Artificial Intelligence
- Focus on MSMEs: Competitiveness, Growth and Sustainability
- Spatial Dimensions of Entrepreneurship: Regions and Clusters
- Culture, Tradition and Value-based Entrepreneurship
- Crisis Entrepreneurship and Post-Pandemic Recovery
- Functional Aspects of Entrepreneurship: Finance, Crowdfunding, Marketing, Operations and International Business
- Sectoral Ecosystems and Entrepreneurship: Agriculture, Holistic Health, Education, Green Economy etc.

The Conference will also feature Special Addresses by eminent academicians, and symposiums on various themes. Doctoral students will have a special opportunity to discuss their research with senior academicians in the Doctoral Colloquium which will be held on **February 25, 2025**.

### Submission Guidelines and Deadlines:

- The full paper must be submitted by **December 13, 2024**. (The full paper should not exceed 5000 words, be typed double-spaced, and follow APA style referencing. Refer to the guidelines available on the conference website.)
- Decisions on the acceptance of full papers will be made by **December 31, 2024**.
- The last date for registration is **January 17, 2025**.

Selected papers will be appreciated based on merit.

For details regarding conference registration and other administrative aspects, please contact:

**Ganapathi Batthini** - Conference Coordinator  
Mobile: 93270 45345  
Tel: +91 -79 - 6910 4900 / 6910 4999  
E-mail: [conference@ediindia.org](mailto:conference@ediindia.org)  
Web: [conference.ediindia.org](http://conference.ediindia.org)



**Entrepreneurship  
Development  
Institute of India**  
Ahmedabad

Bhat, Gandhinagar (Dist) - 382 428, Gujarat  
Tel: +91 -79 - 6910 4900 / 6910 4999  
E-mail: [info@ediindia.org](mailto:info@ediindia.org)  
Web: [www.ediindia.org](http://www.ediindia.org) / [www.ediindia.ac.in](http://www.ediindia.ac.in)



## ASSOCIATION OF INDIAN UNIVERSITIES

Advertisement Tariff: UNIVERSITY NEWS JOURNAL  
W.E.F. APRIL 01, 2017

**A. FOR EDUCATIONAL INSTITUTIONS, GOVT. ORGANIZATIONS, PUBLISHERS,  
BOOK SELLERS & DISTRIBUTORS**

**GST RATE OF 5% IS PAYABLE FOR PUBLICATION OF ALL TYPES OF ADVERTISE-  
MENTS IN ADDITION TO THE PAYABLE CHARGE AS MENTIONED BELOW  
EFFECTIVE APRIL 01, 2020**

Categories of Advertisement	1 Insertion	4 Insertions	8 Insertions	12 Insertions
Full Page	15000	45000	85000	120000
Half Page	8000	28000	50000	68000
Quarter Page	5000	16000	28000	40000
Cover (Inside)	16000	55000	100000	144000
Cover(Back)	20000	65000	120000	165000

### MECHANICAL DATA OF JOURNAL

Size of Page 21 cms x 27 cms

#### PRINT AREA

**Full Page 23 cms (Height) x 16.5 cms (Width)**  
**Half Page 12 cms (Height) x 16.5 cms (Width)**  
**Quarter Page 11 cms (Height) x 8 cms (Width)**

**(Preferable Font Size of the Text – Minimum 10 Point)**

The Art Work/CRC IN PDF in High Resolution as per above Print Area (in BLACK & WHITE ONLY) or as an OPEN FILE in MS WORD may be sent positively at E-Mail IDs as shown below. MATTER FOR ADVERTISEMENT MUST REACH SEVEN (07) DAYS IN ADVANCE FROM THE DATE OF PUBLICATION OF A PARTICULAR ISSUE OF UNIVERSITY NEWS, WHICH IS PUBLISHED EVERY MONDAY.

#### B. TARIFF FOR SPECIAL NATURE OF MATTERS/ITEMS (DOUBLE THE RATES)



Tariff for Suppliers of Computers, Computer Stationery & Peripherals, Scientific and Surgical Instruments, Sports Goods and Others(Not covered in any form of the tariff) will be at double the rates and tariff can be had on request).

**ADVERTISEMENT AGENCIES (INS ACCREDITED) ARE ALLOWED 15% DISCOUNT.**

Full advance payment must be sent directly to AIU Account using any of the Digital modes (i.e. **NEFT/ RTGS/Net Banking/BHIM/G-Pay/UPI, AIU Payment Web portal**, etc.).

The details of AIU Account are available in AIU Website (www.aiu.ac.in).

The required data can be provided by mail on request.

*For further information write to :-*

**Publication & Sales Division**  
**Association of Indian Universities**  
**AIU House, 16, Comrade Indrajit Gupta Marg, New Delhi – 110 002**  
**EPABX : 011-23230059 ( Extn. 208 ) DIRECT LINE: 011 23213481**  
**E-mail ID : [advtn@aiu.ac.in](mailto:advtn@aiu.ac.in) Website : <http://www.aiu.ac.in>**