Rs. 50.00
ISSN-0566-2257

UNIVERSITY NEWS

A Weekly Journal of Higher Education

Association of Indian Universities

Vol. 63 • No. 28 • July 14–20, 2025

Alok Kumar Chakrawal
Bridging Gaps: Ensuring Equity and Diversity in Indian Higher Educational Institutions

Bidyut Chakraborty, Manoj Kumar Yadav and Chinmoy Kumar Ghosh
Personalised Learning : A Boost to Learner Autonomy

K Paddayya
Shripad Krishna Belvalkar: An Outstanding Indologist of the Last Century—Part-II

Amar Nath
Accreditation in Higher Education: A Comparative Analysis of Two Key Studies

Polavarapu Mallikharjuna Prasad
Guiding Principles of Life: Commitment, Involvement, and Confidence
– Convocation Address

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 ADVERTISEMENTS 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. **AIU Payment Web portal, NEFT/ RTGS/Net Banking/BHIM/G-Pay/UPI,** 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 : advtun@aiu.ac.in Website : http://www.aiu.ac.in

UNIVERSITY NEWS
Vol. 63 July 14-20
No. 28 2025
Price Rs. 50.00

A Weekly Journal of Higher Education Published by the Association of Indian Universities

In This Issue

ITEMS PAGE

Articles

Bridging Gaps: Ensuring Equity and Diversity in Indian Higher Educational Institutions 3

Personalised Learning : A Boost to Learner Autonomy 10

Shripad Krishna Belvalkar: An Outstanding Indologist of the Last Century—Part-II# 19

Accreditation in Higher Education: A Comparative Analysis of Two Key Studies 24

Convocation Address
National Institute of Technology, Rourkela 28

CAMPUS NEWS 31

AIU News 33

Theses of the Month (Science & Technology) 36

Advertisement 41

New Subscription Tariff
(Effective April 01, 2025)

Inland
Institutions Academics/Students
(at residential address only)

	Rs.	Rs.
1 year	2500.00	1000.00
2 years	4400.00	1800.00

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

Bridging Gaps: Ensuring Equity and Diversity in Indian Higher Educational Institutions

Alok Kumar Chakrawal*

Fostering equity and diversity in Indian higher education is essential for creating an inclusive and just academic environment. This article examines key challenges such as socio-economic disparities, gender imbalances, and infrastructural limitations while highlighting policies and institutional efforts aimed at ensuring inclusivity. Special focus is given to the initiatives of Guru Ghasidas Vishwavidyalaya, Bilaspur, including *Sudama Yojana* (financial assistance for underprivileged students), *Swabhimaan Thali* (affordable meals for all @10 rupees), *Ek Bharat Shreshtha Bharat* (cultural exchange and national integration), and the promotion of sports and yoga for holistic student development. By analyzing these initiatives, the article emphasizes the importance of strategic, collaborative approaches in bridging educational gaps and fostering equal opportunities for all students in Indian higher educational institutions.

Higher education in India is crucial in shaping the country's social, economic, and intellectual landscape. As one of the largest education systems in the world, with over a thousand universities and thousands of colleges catering to millions of students, Indian higher education is inherently diverse. However, despite this diversity, systemic inequalities hinder equitable access to education for all. Issues such as caste-based discrimination, gender disparity, linguistic barriers, socio-economic inequities, and lack of adequate representation of marginalised communities in faculty and administrative roles make it imperative for higher educational institutions to adopt comprehensive strategies that promote equity and diversity on campuses. The Indian higher education system has historically been influenced by socio-cultural hierarchies that create obstacles for students from marginalised backgrounds. Scheduled Castes (SCs), Scheduled Tribes (STs), Other Backward Classes (OBCs), religious minorities, women, students from rural and remote areas, and persons with disabilities often face significant challenges in accessing quality education. The disparities manifest in various forms—whether it is financial constraints preventing students from enrolling in prestigious institutions, language barriers limiting comprehension in classrooms, gender biases restricting women's participation in certain disciplines, or infrastructural deficiencies making education inaccessible for students with disabilities.

At the policy level, India has implemented several affirmative action measures to bridge these gaps. The reservation system in higher education, which allocates seats for SC, ST, and OBC students, has been a crucial step toward ensuring representation and access

**Vice Chancellor, Guru Ghasidas Vishwavidyalaya, Bilaspur, Chhattisgarh. E-mail: vcpaggu@yahoo.com*

for historically disadvantaged groups. The recent expansion of reservations to include Economically Weaker Sections (EWS) further reflects efforts to address economic disparities in education. However, while these policies have enabled greater enrollment of marginalised students, they do not automatically translate into an equitable learning experience. Many students admitted through these provisions continue to face discrimination, inadequate academic support, and difficulties in integrating into campus life.

The National Education Policy (NEP) 2020 has laid out a progressive vision for making higher education more inclusive and accessible. The policy emphasises increasing the Gross Enrollment Ratio (GER) to 50% by 2035 and proposes several key measures to promote equity and diversity, including:

- Gender Inclusion Fund to support initiatives that increase female participation in higher education.
- Special Education Zones (SEZs) for socio-economically disadvantaged regions to ensure better educational infrastructure and access.
- Multilingual Education to support students from non-English backgrounds in higher education.
- Flexible Learning Pathways that allow students to exit and re-enter the education system based on their personal circumstances.

Despite these promising initiatives, challenges remain in implementing these policies at the institutional level. Indian universities must actively work toward creating a culture of inclusivity by addressing biases in admission processes, diversifying faculty recruitment, ensuring equal access to academic and co-curricular opportunities, and fostering an environment where students from diverse backgrounds feel valued and supported.

The Importance of Equity and Diversity in Higher Education

Equity and diversity are not just ethical or social imperatives; they are essential for improving the overall quality of education. A diverse student body and faculty bring varied perspectives, enrich classroom discussions, and foster critical thinking. When students from different socio-cultural and economic backgrounds interact, they develop a deeper understanding of societal issues and build essential skills such as empathy, adaptability, and cross-cultural communication. Moreover, inclusive campuses contribute to greater innovation and problem-solving, as diverse groups tend to generate more creative and holistic solutions to complex challenges.

Equity, however, goes beyond diversity. While diversity refers to the presence of individuals from different backgrounds, equity ensures that each individual receives the necessary support to succeed. For example, merely increasing the enrollment of women in science and technology programs does not achieve equity unless institutions also provide mentorship, scholarships, and a safe environment that enables them to thrive in male-dominated fields. Similarly, admitting students from tribal or rural backgrounds is not sufficient unless universities offer additional language support, bridge courses, and financial aid to help them overcome academic disadvantages.

Major Dimensions of Diversity in Indian Higher Education

Caste and Tribal Inclusion

The caste system has historically restricted access to education for many communities. While affirmative action policies have improved representation, SC, ST, and OBC students often face social discrimination and economic hardships that hinder their academic progress. Tribal communities, in particular, have lower educational attainment due to geographic isolation and inadequate institutional support.

Economic Inequality

Many students from economically weaker sections struggle with tuition fees, accommodation costs, and access to study materials. The digital divide further exacerbates inequalities, as students from rural and lower-income backgrounds may lack access to the internet and technology necessary for modern education.

Gender Diversity

Women in Indian higher education have made significant strides, yet gender disparities remain, particularly in STEM (Science, Technology, Engineering, Mathematics) fields, leadership roles, and faculty representation. Social norms and safety concerns continue to discourage female participation in certain disciplines and extracurricular activities.

Linguistic Barriers

India's linguistic diversity is both a strength and a challenge in higher education. Most universities

use English as the primary medium of instruction, which creates difficulties for students from vernacular backgrounds. The NEP 2020's emphasis on multilingual education is a step in the right direction, but its effective implementation requires institutional commitment.

Disability Inclusion

Students with disabilities continue to face significant challenges due to inadequate infrastructure, lack of accessible course materials, and limited support services. Universities must improve their disability-friendly facilities, including ramps, assistive technologies, and special learning accommodations.

Religious and Cultural Diversity

India's secular fabric ensures that students from various religious and cultural backgrounds can coexist in higher education spaces. However, religious biases and cultural misunderstandings sometimes create tensions on campuses. Institutions must actively promote intercultural dialogue and inclusivity.

Challenges to Achieving Equity and Diversity

Despite ongoing efforts, several challenges persist in making Indian higher education truly inclusive:

Limited Awareness and Sensitization: Many faculty members and administrators lack training on equity and diversity, leading to unconscious biases in teaching, evaluation, and policy implementation.

Infrastructural Gaps: Universities often lack adequate hostels, libraries, and digital resources for disadvantaged students. Disability-friendly infrastructure remains inadequate in most institutions.

Societal Prejudices: Deep-rooted social biases continue to affect the participation and retention of marginalized groups in higher education.

Financial Constraints: The rising cost of higher education makes it difficult for students from lower-income backgrounds to sustain their studies. While scholarships exist, they are often insufficient or difficult to access.

Lack of Representation in Faculty and Administration: The underrepresentation of marginalized communities in faculty and leadership roles limits mentorship opportunities and affects policy decisions.

Equity and diversity in Indian higher education are essential for creating a more just and inclusive society. While policies such as reservations, financial aid programs, and the NEP 2020's inclusive framework have brought progress, much more needs to be done to address the structural barriers that continue to disadvantage marginalized groups. Universities must go beyond compliance with policies and actively work toward fostering an academic culture where every student and faculty member, regardless of their background, has the opportunity to succeed. Only through systemic reforms, institutional commitment, and a shift in societal attitudes can Indian higher education truly achieve equity and diversity in its truest sense.

Strategies and Best Practices for Promoting Equity and Diversity in Indian Higher Education

To build truly inclusive and equitable campuses, Indian higher education institutions must adopt proactive strategies and best practices that address systemic barriers while fostering an environment of belonging, respect, and opportunity for all students. The following key measures can help universities move toward greater inclusivity and equity:

Strengthening Affirmative Action and Inclusive Admissions Policies

Affirmative action policies such as reservations for SCs, STs, OBCs, and Economically Weaker Sections (EWS) have played a crucial role in increasing access to higher education for marginalised communities. However, their implementation needs improvement to ensure that deserving candidates benefit without bureaucratic hurdles.

Best Practices

- Universities should streamline scholarship and reservation processes to make them more accessible.
- Special outreach programs should be conducted in rural and tribal areas to inform students about higher education opportunities.
- Bridge courses and preparatory programs should be offered to help students from disadvantaged backgrounds transition smoothly into university life.

Enhancing Financial Support and Reducing Economic Barriers

Financial constraints are one of the biggest barriers to equitable access in Indian universities. Expanding financial aid programs and reducing hidden costs can ensure that no student is forced to drop out due to economic hardships.

Best Practices

- Increasing government and institutional scholarships for students from marginalized backgrounds.
- Introducing more need-based, rather than just merit-based, financial aid programs.
- Providing subsidized accommodation, transportation, and meal programs to support economically disadvantaged students.

Implementing Multilingual Education and Language Support Programs

Given India's linguistic diversity, universities must create language-friendly environments where students from vernacular backgrounds do not feel disadvantaged.

Best Practices

- Offering bilingual or multilingual instruction, particularly in foundational courses.
- Providing academic writing and communication workshops in both English and regional languages.
- Encouraging faculty to adopt inclusive teaching strategies that accommodate diverse linguistic backgrounds.

Creating Safe and Inclusive Campuses for Women Students

Gender inclusivity must be a central part of university policies to ensure that all students feel safe and respected on campus.

Best Practices

- Establishing gender-neutral facilities, including restrooms and accommodations.
- Enforcing strict anti-harassment policies and setting up grievance redressal cells.
- Creating student-led gender and diversity clubs that foster awareness and advocacy.

Improving Infrastructure and Accessibility for Students with Disabilities

Indian universities must work towards making their campuses physically and academically accessible to students with disabilities.

Best Practices

- Ensuring barrier-free campuses with ramps, elevators, and assistive technologies.
- Providing sign language interpreters and Braille resources for visually and hearing-impaired students.
- Training faculty members in inclusive pedagogy that accommodates diverse learning needs.

Increasing Diversity in Faculty and Leadership

Faculty diversity plays a crucial role in fostering inclusive academic environments. The underrepresentation of marginalized communities in faculty and leadership positions must be addressed.

Best Practices

- Implementing affirmative hiring policies for SC/ST/OBC and women faculty members.
- Encouraging mentorship programs where senior faculty guide students and junior faculty from underrepresented backgrounds.
- Creating leadership development programs to ensure greater participation of diverse groups in academic administration.

Strengthening Mental Health and Well-being Services

Mental health services should be integrated into the university framework to support students dealing with academic stress, discrimination, and personal challenges.

Best Practices

- Establishing well-funded counseling centers with trained mental health professionals.
- Conducting regular workshops on stress management, emotional resilience, and well-being.
- Encouraging peer support groups where students can share experiences and seek guidance.

Encouraging Inclusive Pedagogy and Curriculum Reform

A truly diverse university must reflect multiple perspectives in its curriculum and teaching methods.

Best Practices

- Integrating marginalized voices, indigenous knowledge, and alternative perspectives into academic syllabi.
- Encouraging participatory learning that includes case studies, narratives, and lived experiences of diverse communities.
- Training faculty in culturally responsive teaching methods that cater to students from different backgrounds.

Fostering Community Engagement and Social Responsibility

Universities should actively engage with local communities to bridge the gap between academia and society, particularly in rural and underprivileged areas.

Best Practices

- Establishing community outreach programs where students and faculty work on grassroots issues.
- Collaborating with NGOs and social organizations to provide experiential learning opportunities.
- Encouraging service-learning projects that integrate academic knowledge with real-world problem-solving.

Policy Interventions and Government Support

Strong policy frameworks are essential to institutionalizing equity and diversity in Indian higher education.

Best Practices:

- Full implementation of the National Education Policy (NEP) 2020, which promotes inclusivity and multilingual education.
- Strengthening regulatory bodies like the UGC and AICTE to monitor diversity and equity measures in universities.
- Encouraging periodic diversity audits to assess and improve institutional inclusivity.

Creating an equitable and diverse academic ecosystem requires a collective commitment from policymakers, institutions, educators, and students. While India has made significant strides in making higher education more accessible, persistent challenges continue to exclude many from fully participating in academic life. By adopting these best practices and fostering a culture of inclusion, Indian universities can move toward a future where education truly becomes a right for all, regardless of socio-economic, linguistic, gender, or regional background.

Equity and Diversity Initiatives at Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

Guru Ghasidas Vishwavidyalaya (GGV), a Central University in Chhattisgarh, has been actively working toward promoting social equity, diversity, and inclusion in higher education. The university implements various programs and policies to address the educational needs of Scheduled Tribes (STs), Scheduled Castes (SCs), Other Backward Classes (OBCs), economically weaker sections (EWS), women, students with disabilities, and first-generation learners from rural and tribal areas.

Educational Access for Tribal and Marginalized Communities

- Reservation Policy: GGV follows the Government of India's reservation guidelines, ensuring fair representation of SC, ST, OBC, and EWS students in admissions and faculty recruitment.
- Special Entry Schemes: Relaxation in cut-off marks, remedial coaching programs, and mentorship initiatives help students from disadvantaged backgrounds transition into higher education.
- Tribal Research and Outreach Programs: The university collaborates with local tribal communities to document and preserve their languages, folklore, and cultural heritage through academic research.

Financial Assistance and Welfare Schemes

Sudama Yojna (Subsidized Mess Facility)

- GGV offers the Sudama Yojna, a subsidized meal scheme providing affordable and nutritious food for students from economically weaker backgrounds.
- This initiative ensures that no student faces food insecurity due to financial hardships.

Swabhimaan Thali (Dignity Meal Program)

- Under the Swabhimaan Thali initiative, the university provides low-cost (@10 rupees) meals to students on campus.
- This initiative supports students from rural and economically marginalized backgrounds,

ensuring they have access to healthy and affordable food options.

Post-Matric Scholarships for SC/ST/OBC Students

- These scholarships are funded by state and central governments to financially support students from marginalized communities.
- Special fellowships and fee waivers are provided for meritorious and economically disadvantaged students.

Merit-cum-Means Scholarships and Hostel Subsidies

- Tuition waivers and stipends are awarded to students with outstanding academic performance but limited financial resources.
- Discounted hostel fees and subsidized meals are provided to students from weaker socio-economic backgrounds.

Cultural and National Integration Initiatives

Ek Bharat Shreshtha Bharat (EBSB) Program

- The university actively participates in Ek Bharat Shreshtha Bharat, a government initiative promoting national integration, cultural exchange, and linguistic diversity among students.
- Various programs, including inter-state cultural festivals, academic exchange programs, and language learning initiatives, foster mutual understanding and appreciation of India's diverse cultural heritage.

Celebration of Regional and Tribal Festivals

- GGV organises festivals, literary events, and cultural exhibitions to celebrate the diversity of its student body.
- Events such as tribal dance festivals, folk art workshops, and community feasts bring students together to appreciate different cultural traditions.

Gender Inclusivity and Women's Empowerment

Women's Study and Empowerment Cell

- Conducts seminars, leadership workshops, self-defence training, and career counselling for female students.
- Supports women in STEM (Science, Technology, Engineering, and Mathematics) through mentorship programs.

Internal Complaints Committee (ICC) and Gender Sensitisation Workshops

- The ICC addresses gender-based discrimination and harassment to ensure a safe and inclusive campus.
- Regular awareness programs on gender equality and women's empowerment are conducted.

Language Inclusivity and Multilingual Education

- Language Proficiency Courses: GGV offers language support programs in English and Hindi for students from tribal and vernacular backgrounds.
- Regional and Tribal Language Promotion: The university encourages research and documentation of tribal languages like Chhattisgarhi and Gondi.

Infrastructure and Support for Students with Disabilities

Barrier-Free Campus Initiative

- Construction of ramps, tactile pathways, wheelchair-accessible classrooms, and washrooms to make the university inclusive for students with disabilities.
- Assistive technology, Braille resources, and screen-reading software are provided in the library.

Exam and Classroom Accommodations

- Extra time in exams, scribes for visually impaired students, and accessible study materials are provided.

Mental Health and Student Well-Being

Counselling and Guidance Cell

- Provides psychological counseling, stress management workshops, and career guidance.
- Peer mentorship programs help first-generation learners adjust to university life.

Yoga and Wellness Initiatives

- GGV promotes Yoga and Meditation programs to improve students' mental and physical well-being.
- Daily yoga sessions and workshops on mindfulness and holistic health are conducted.

Sports, Fitness, and Physical Well-Being

- The university encourages sports and physical activities as part of holistic student development.

- Facilities for athletics, football, cricket, basketball, kabaddi, and indigenous sports are available.
- Annual sports festivals and inter-university competitions promote a spirit of teamwork, leadership, and physical fitness.

Rural and Community Engagement Programs

National Service Scheme (NSS) and National Cadet Corps (NCC)

- Students participate in literacy campaigns, health awareness drives, and rural development projects in nearby villages.
- Special programs on sanitation, digital literacy, and environmental conservation are conducted in tribal areas.

Skill Development and Vocational Training

Programs focus on training students in agriculture, handicrafts, and entrepreneurship to align with local employment needs.

Research and Innovation for Social Impact

- Interdisciplinary Research on Social Justice: Faculty and students research caste, gender, tribal issues, and economic disparities.
- Collaboration with Government and NGOs: GGV works with state and national agencies to implement social welfare projects.
- Sustainability Research: Encouraging studies on environmental conservation, renewable energy, and indigenous knowledge systems.

Guru Ghasidas Vishwavidyalaya's commitment to equity and diversity is reflected in its inclusive policies, financial assistance programs, cultural integration efforts, and student well-being initiatives. By addressing the needs of marginalized communities, promoting gender and linguistic inclusivity, supporting students with disabilities, and encouraging community engagement, GGV is creating a holistic, socially responsible, and academically enriching environment. With continuous efforts in policy implementation, infrastructure development, and cultural integration, GGV is emerging as a model institution for inclusive and diverse higher education in India.

Conclusion

Ensuring equity and diversity in Indian higher educational institutions is not just a policy mandate but a fundamental necessity for fostering inclusive academic environments. While significant strides have been made through reservation policies, financial aid programs, gender sensitization initiatives, and infrastructural improvements, challenges persist in fully bridging socio-economic and cultural disparities. The National Education Policy (NEP) 2020 has laid a strong foundation for promoting inclusivity by advocating for increased access to education, flexible learning pathways, and support for marginalized communities. Institutions like Guru Ghasidas Vishwavidyalaya, Bilaspur, have aligned their efforts with the vision of NEP 2020, implementing targeted initiatives to address inequities and foster an inclusive academic ecosystem.

Moving forward, a multi-pronged approach that combines government policies, institutional commitments, and active student participation is essential. Strengthening digital learning access, enhancing faculty training on inclusivity, revising curricula to reflect diverse perspectives, and fostering cross-cultural dialogue—key recommendations of NEP 2020—can further bridge gaps. Equity and diversity must not remain aspirational goals but should translate into concrete actions that create an empowering and accessible educational landscape for all. Only through sustained and collaborative efforts, in alignment with NEP 2020, can Indian higher education truly evolve into a space where every student, irrespective of background, has the opportunity to thrive. ❑

Personalised Learning : A Boost to Learner Autonomy

Bidyut Chakraborty*, Manoj Kumar Yadav and Chinmoy Kumar Ghosh*****

This study examines the efficacy of student-driven self-assessment as a technique used to facilitate personalised learning contextualised with reference to the milieu of a conventional classroom. Notwithstanding the shortcomings of the "one-size-fits-all" method in dealing with the varied learning requirements of students, the study determines whether systematically designed self-assessment can improve motivation, knowledge retention, and critical thinking without changing established instructional models. A mixed-methods design was followed among 30 Class X students from a secondary school in West Bengal, undergoing the 2024 WBBSE exam preparation. The treatment group (n=14) was given self-assessment, immediate feedback loops, and diagnostic MCQ creation tasks, while the control group (n=16)was made to handle traditional assessment strategies. Data were gathered using four achievement tests and two diagnostic tests on the topic "Evolution and Adaptation" of Life Science. Results show that self-assessment procedures were in line with teacher assessments and served to enhance students' motivation and participation. The treatment group demonstrated better knowledge retention and improved critical thinking skills, especially in designing plausible distractors for MCQs—a marker of greater content mastery. The research concludes that self-assessment, when augmented with feedback, can facilitate self-regulated learning and offer numerous advantages of personalised learning within current school structures, without reorganising classroom delivery or curriculum design.

Teachers all over are witness to the issue of heterogeneity in learning style among the learners. No two learners would learn the same way, nor at same pace. In this scenario personalised learning may stake its claim as an alternative teaching-learning model. It is opposed to “one-size-fits-all”-approach i.e., in the model of personalised learning teacher guides each student in her individual journey of learning. As we all know, with the guidance of the teacher, a learner remains on the track to meet her cherished goal of reaching a specified standard in each subject or content or in respect of passing an examination. To check the degree to which students are meeting such specified learning objectives, teachers use assessment tools. So, assessment of the learning provides evidence of students’ learning, and it can be used for categorization of students on the basis of their conceptual clarity in different learning areas or subjects and also for reporting to the wider community, that is the guardians, other teachers, students, their peers and every other stakeholder, which also includes the general public. In this context, self-assessment can play a crucial role. It can help a student to judge her own abilities and performance and help her in becoming a self-regulated learner. So, in this learner-centred approach, a student conducts herself as an active performer during assessment and thereby learner's autonomy gets enhanced.

When the degree to which students achieve the learning objectives is specified for a given subject and “one-size-fits-all”- instructional strategy stands non-aligned, the learner might feel the absence of the component required for measuring their proficiencies in every area that had been covered in the class, and teachers might feel that even though students have earned a passing grade, they have not really mastered the learning objectives to the desired level of competence. Some of them might have been promoted on consideration or promoted by some chance factor to the next class. Personalised Learning Model (PLM) has a vital role to play here. It focuses on minimising the gap between the outcomes of classroom teaching leading to the earning of a passing grade and those happening in exactitude by way of internalising the contents by a learner. The below-mentioned benchmarks can be used for making an assessment of the efficacy of PLM by way of its capability in (i) engaging and motivating learners, (ii) increasing knowledge retention (iii) bringing improvement in test scores.

Review of Related Literature

The significance of self-assessment as a promoter of successful learning has been thoroughly

**Assistant Teacher, Science Group, Nandighat Adarsha Vidyaniketan, E-mail-bid9836@gmail.com*

***Manoj Kumar Yadav, Assistant Professor of Science Education, Regional Institute of Education, Bhubaneswar-751022, E-mail-mmonozz9433@gmail.com*

****Chinmoy Kumar Ghosh, Former Director, NCIDE, Indira Gandhi National Open University, New Delhi – 110068, E-mail contactckg@gmail.com*

supported throughout a wide-ranging set of educational texts. The core to this body of work remains Zimmerman's (2015) foundational text, *Self-Regulated Learning: Theories, Measures, and Outcomes,* which offers a definitive model of self-regulated learning (SRL). Zimmerman places self-assessment as a central process within SRL that becomes necessary to support learners in monitoring, modifying, and adjusting their learning strategies in cognitive and motivational aspects. Gredler (2009), in *Learning and Instruction: Theory into Practice*, takes this a step further by connecting learning theory with instructional practice and illustrating how self-assessment strengthens metacognition and reflection based on real pedagogical examples. Likewise, the edited book by Moely and McDaniel (2002), *Metacognition and Learning: Theory, Assessment, and Instruction*, emphasises self-assessment as a central component of metacognitive growth. This book identifies the relationship between assessment procedures and metacognitive strategy application, providing evidence-based methods for encouraging self-reflective learning across various educational settings. Hattie and Timperley (2007), in *Self-Assessment and Self-Directed Learning: From Principles to Practice*, discuss further the self-assessment component in fostering autonomous learning.

They contend that quality self-evaluation processes endow learners with the ability to plan, track, and make knowledge-driven changes—competencies necessary for a lifetime of learning. Augmenting this, the groundbreaking meta-analysis of Pintrich and De Groot (1990), *The Role of Self-Evaluation in Educational Success*, collates evidence to substantiate a highly positive correlation among self-evaluation, academic success, and student motivation. From a developmental viewpoint, Paris and Paris (2001), in *Self-Assessment and Self-Improvement*, stress the formative value of self-assessment as it is depicted as a metacognitive process beneficial to the advancement and success of learners throughout various stages of learning development. Boud (2000), in *The Role of Self-Assessment in Student Learning*, delves into the theoretical foundations and realistic problems in realising self-assessment within classrooms.

He offers a paradigm that emphasises the power of transformative change through including learners in the process of evaluation. Andrade and Du (2005) emphasise, through their research paper *Self-Evaluation: A Key to Improving Student Learning*, the role played by self-evaluation in promoting metacognitive skills, and provide practical teaching strategies for incorporation in the classroom. Ross, et. al. (2006) support these results with their meta-analysis, *The Effects of Self-Assessment on Student Learning*, which shows the positive impacts of self-assessment on student performance, participation, and motivation. Lastly, Zimmerman's (2000) theoretical discussion, *Self-Regulated Learning and Self-Evaluation: A Theoretical Framework*, offers a detailed model that views self-evaluation as a continuous process within SRL, focusing on self-reflection and self-adjustment as essential to learning. Together, these investigations agree that self-evaluation is not just a secondary pedagogy but the cornerstone in promoting self-directed, reflective, and high-achieving learners. The available literature makes strong theoretical, empirical, and practical arguments on the incorporation of self-evaluation into instructional planning, thus reinforcing it as a critical component in effective teaching and learning processes of both conventional and modern educational platforms.

Rationale of the Study

This study is focused on whether modification of assessment strategy, i.e., from teacher-made professional assessment of test papers (Assessment of Learning) to student-made self-assessment (Assessment as Learning) helps us to achieve the benefits of customized learning plan based on each student's strengths, need and interest, of course without modifying traditional classroom teaching plan in any way. A prime area of concern is the very poor knowledge retention capacity of students, which the authors ascribed to the bane of rote learning (we mug up so many things prior to the tests and forget them conveniently after these are over). It is very strongly felt that better understanding increases the retention of content knowledge.

Most of the empirical studies in relation to self-assessment focused on the relationship between self-assessment and achievement, consistency of self-assessment and other assessment processes, students' perception about self-assessment, its linkages with self-regulated learning and so on. Samples for most of the studies were health professionals and medical students. Very few studies have been conducted on the students who were studying at the secondary level or belonging to that age group, which had prompted

the authors to choose it as their area of study. Further, research work that uses any tool to test the critical thinking of content knowledge of self-assessors has not been found.

Probing Questions (PQ)

After carefully analysing the available literature and exercising due diligence of the academic concerns, the authors arrived at the following probing questions:

PQ1: Is student's self-assessment as accurate and consistent as teacher-driven assessment?

PQ2: Does immediate feedback of self-assessment make a student motivated and interested towards the next round of assessment or the next learning goal to achieve?

PQ3: Is self-assessment an effective strategy that improves knowledge retention?

PQ4: Does the self-assessment strategy empower students to analyse and apply the content knowledge in different contexts?

Based on the PQs, the objectives of the study are spelt out as under:

The major objective of this study is to understand personalised learning from the perspective of self-assessment, based on the following specific objectives.

Specific Objectives

1. To examine the consistency of a self-assessor in a self-assessment process.
2. To assess the impact of immediate feedback on the motivation and interest of a learner to achieve her learning goals.
3. To evaluate self-assessment as a factor of knowledge retention.
4. To assess self-assessment as a regulator of critical thinking of content knowledge.

Hypotheses

The following alternative hypotheses were selected for the study:

H_1: Learner-centred self-assessment is equally consistent with the teacher-driven judgment.

H_2: Students would feel motivated to achieve the next learning goal.

H_3: Understanding of content knowledge improves knowledge retention.

H_4: Self-assessment strategy empowers students to analyse and apply content knowledge in different situations or contexts.

Statement of the problem

Based on the above, it may be stated that this study is to analyse whether student-made self-assessment in consonance with external feedback improves learners' academic achievement and makes them Self-Regulated Learners (SRL).

Delimitation of Study

All the members of the treatment and the control groups are students of Class X of same age group and of the same institution. Data are exclusively collected either by a written Achievement Test, by Oral test and Interview on specific topic: Evolution and Adaptation, according to the syllabus of Life Science & Environment for Class-X as prescribed by the West Bengal Board of Secondary Education (WBBSE).

Adopted Methodology

The methodology of this study consisted in find a cause-effect relationship. In this context, the methodology had to be Experimental, i.e. quantitative in nature. But in order to understand the motivation and interests of the learners, the authors had to depend on observations and face-to-face interactions, and so the methodology was also qualitative in nature. Thus, the adopted methodology was of mixed type.

Population

A total of 100 students of Class X of a secondary school, who were to sit for the school final examination (WBBSE) in 2024, were taken as the population of the study.

Sample

Purposive Sampling was used as it helps to reduce variation, leads to simplified analysis and easier group interview. Total number of subjects in the samples was 30 in which the treatment group consisted of 14 and the control group consisted of 16 subjects.

From the statistical point of view, a large sample size is always beneficial, but the authors had to take into account the logistic features like ease of data collection, preparation of test papers and analysis procedure for a small sample size. Nonetheless, in terms of power, a sample size of 30 participants

is sufficient to address the objectives with four assessment sessions with external feedback and two unique MCQ creation sessions.

Planning and Execution of the Study

Assessing Consistency of Treatment Group as Self-Assessors

The first achievement test aims to evaluate the consistency of the experimental group by having them act as self-assessors on a specific topic. This test is crucial to assess the group's ability to accurately evaluate their own performance and learning outcomes. The research study begins by selecting a specific topic relevant to the study and ensuring that all participants have received the same learning materials and have equal opportunities. A test is designed to measure students' understanding of the selected topic. It consists of various question formats such as multiple-choice type questions (MCQs), and short-answer-based questions.

Self-Assessment: The participants in the experimental group completed the test and are then asked to assess their own answers. They are instructed to use a rubric or answer key provided by the researchers to ensure consistent grading criteria. The results of their self-assessment are compared to the scores awarded by independent assessors (subject teacher) to check for discrepancies. The difference between self-assessed scores and independently assessed scores will help in evaluating how consistent the experimental group is in evaluating their own performance.

Assessing Analytical and Critical Thinking Abilities

The second test is designed to gauge the treatment group's ability to analyse and critically evaluate information by creating a Multiple-Choice Questionnaire (MCQ) on the same topic. However, the twist is that the group must provide incorrect options (distractors) for each question. This task is an effective way to measure their understanding of the subject matter, as well as their ability to identify plausible but incorrect answers.

The treatment group is asked to create an MCQ test with a correct answer and three wrong options (distracters). The wrong options should be misleading but conceptually relevant, requiring a deep understanding of the subject.

Creating well-constructed distractors necessitates a thorough understanding of the content. Participants need to critically evaluate why a particular option is incorrect and how it can mislead someone unfamiliar with the material.

The process of distinguishing between correct and incorrect answers, and understanding how to mislead without being too obvious, strengthens the experimental group's critical thinking skills.

The quality of the MCQs, particularly the plausibility of the distractors, is analyzed. The more effective and conceptually relevant the distractors, the stronger the participant's critical thinking and analytical abilities.

Assessing Knowledge Retention for Treatment and Control Groups

The third test was aimed to compare the knowledge retention abilities of the treatment group and the control group. After a period of learning, participants from both groups are tested on the same material to assess how much knowledge they have retained over time. The control group follows the traditional learning process, while the treatment group may have undergone additional interventions such as self-assessment and critical analysis exercises.

Both groups are given the same Achievement Test, which is designed to assess long-term knowledge retention on the selected topic. This test includes MCQs, short-answer type questions, and a few problem-solving scenarios that require application of the knowledge learned.

The performance of the treatment group, which has undergone self-assessment and critical analysis exercises, is compared to the control group's performance.

The results are analyzed to determine if the additional interventions (self-assessment and MCQ construction with incorrect options) in the experimental group had a positive impact on knowledge retention. Statistical methods can be used to assess the significance of the differences between the two groups. The outcome of this test will indicate whether the interventions improved long-term knowledge retention and whether critical thinking and self-assessment skills contributed to better academic performance.

Collaboration with Students and Fellow Teachers

At every stage of planning and execution, all the students, their mentors and teachers were very cooperative.

Materials and Tools

- Test items consist of (MCQ, very short answer type, short answer type questions) -20 marks; for 4-assessments; Reliability of test items approved by the project guide.
- Lead statement containing test papers against which students had provided viable but wrong options—Two diagnostic tests.
- Oral questions
- Interview questionnaires

Data Gathering Tool

***Primary Data*:** First hand data collected from four consecutive achievement tests' scores and the two diagnostic tests.

***Secondary Data*:** From school-maintained marks or from tabulation copy.

Duration

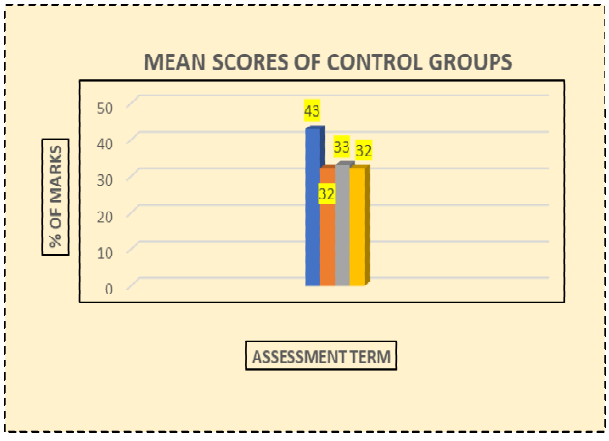
Execution of the project at the school level started on 26th December 2022 and project concluded on 26th February 2023.

Data Analysis and Data Interpretation

Data analysis had been performed and presented using self-explanatory graphs, qualitative observations, and data tables. A convergent design of the data analysis process was adopted to draw conclusions from the analysed data.

Providing viable but wrong options to a given MCQ required understanding, analyzing abilities and critical thinking on a given content knowledge. As evident from results of 2- diagnostic tests that student slowly but steadily manifested those abilities.

Chart-1 : Mean Scores of Control Groups



Major Findings

Regarding Consistency of Self Assessors

They were consistent and can efficiently assess their test papers based on standard answer key. This finding is aligned with the findings of most research literatures. (Chart No- 3, 4, 5 and 6)

Regarding Increase in Motivation & Interest of Learners to Reach Next Learning Goal

Steady increase in the mean scores of learners of Treatment Group and immediate need based external feedback motivated them to understand the concept in a more meaningful way. And that reflected in their positive behaviors and attitude in the classroom, during their achievement tests and self-assessments. (Chart No. 1, 2, 7, 8, 9 and 10)

Chart-2 Comparison of Mean Scores between Control Group & Treatment Group

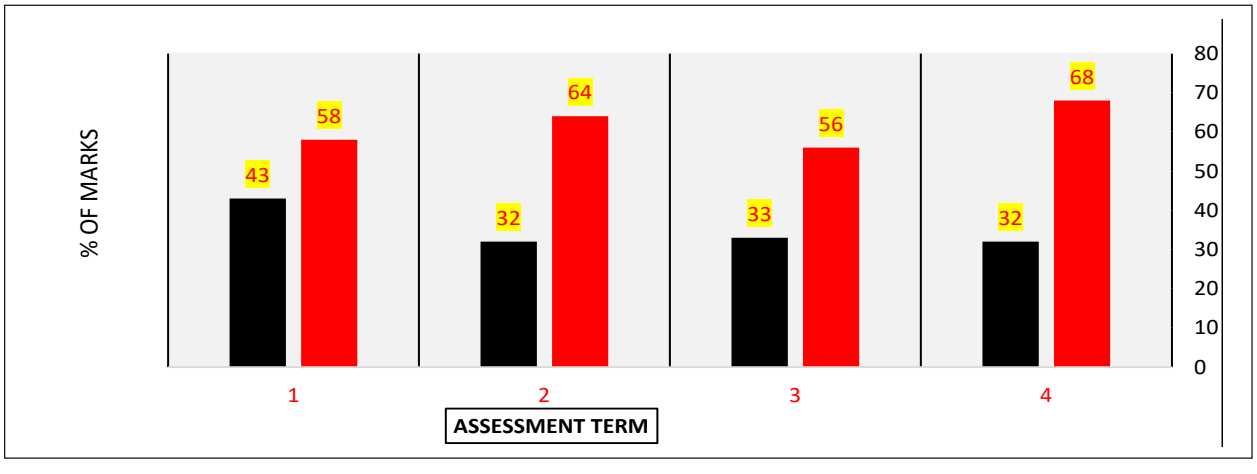


Chart-3 Consistency of Self-assessor

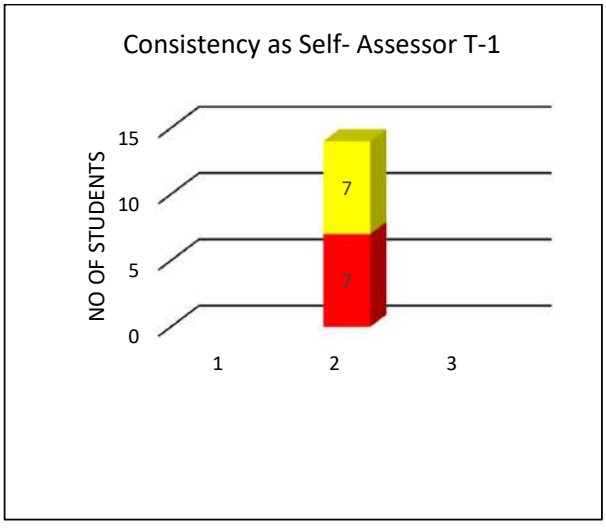


Chart-4 Consistency of Self-assessor

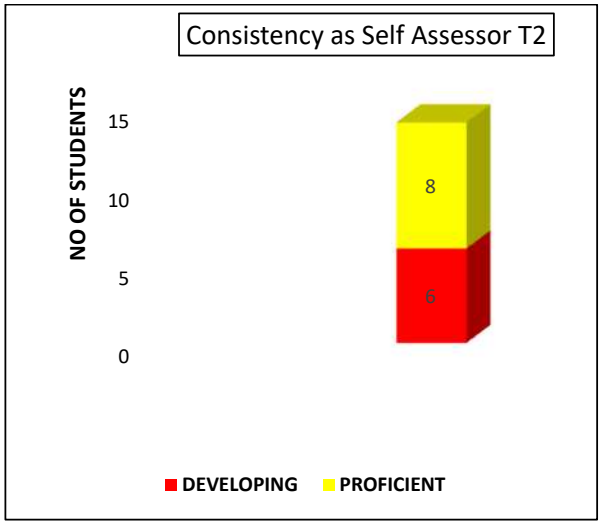


Chart-5 Consistency of Self-assessor

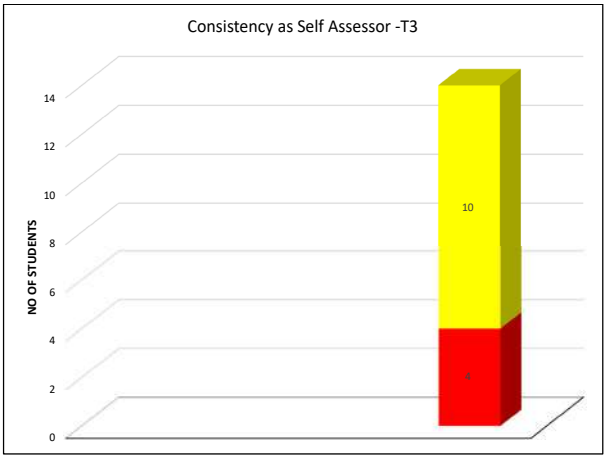


Chart-6 Consistency of Self-assessor

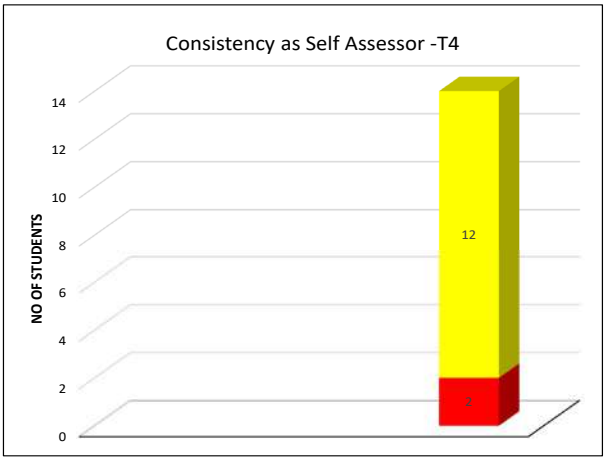


Chart-7 Individual Scores of the Students Evenly Distributed on the Left (lower) and Right (higher) as Compared to Mean Score of the Treatment Group

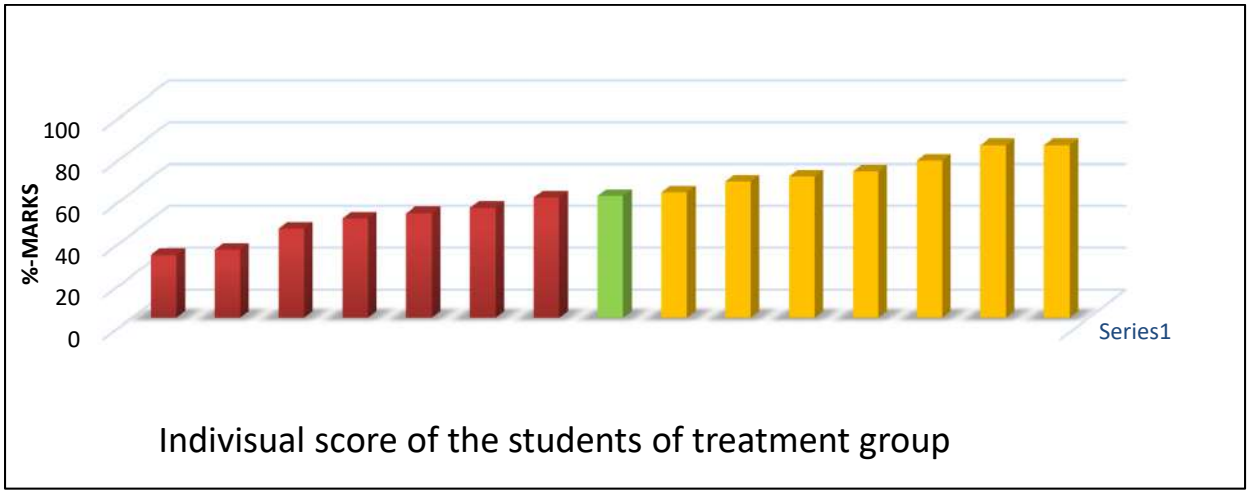


Chart- 8 Individual Scores of the Students Distributed on the Left (lower) and Right (higher) of Mean Score. (Mean Score of the Treatment Group Increased and Number of Students on the Right Side of the Mean Score also Increased Compared to First Assessment)

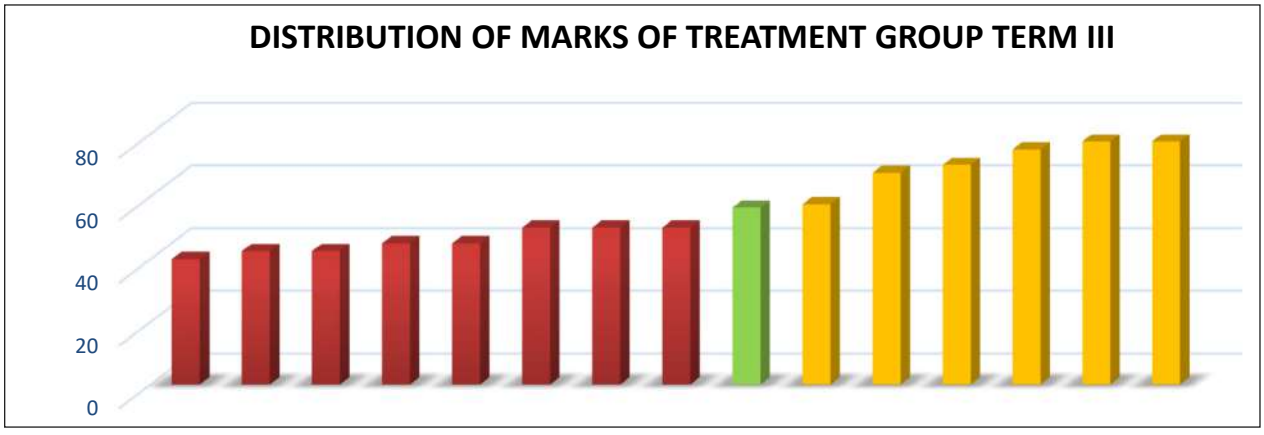


Chart-9 Individual Scores of the students distributed on the Left (lower) and Right (higher) of Mean Score. (Mean Score is Less than Mean Score of Second Assessment, and Number of Students on the Right Side also Increases)

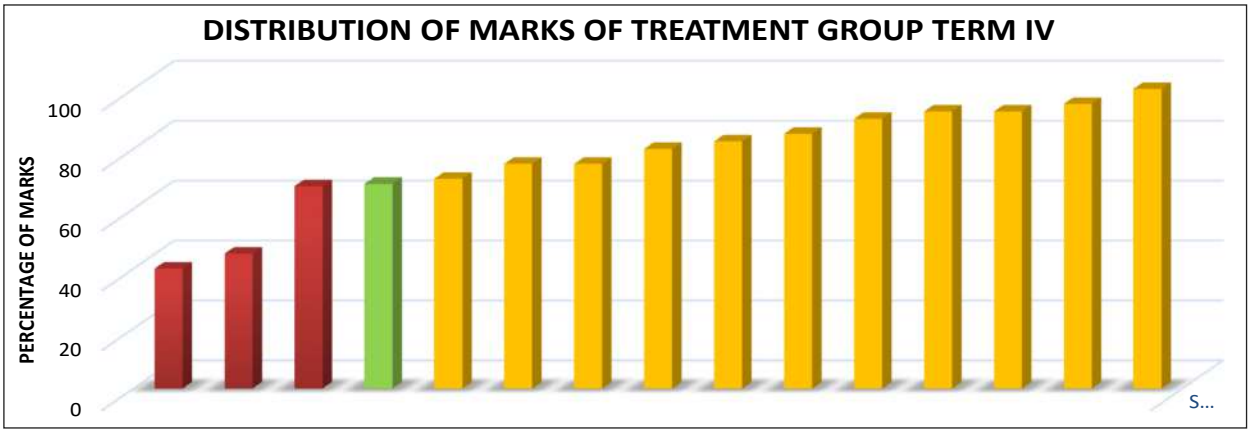


Chart-10 Individual Scores of the Students Distributed on the Left (lower) and Right (higher) than Mean Score. (Mean Score is Highest of all Four Achievement Tests)

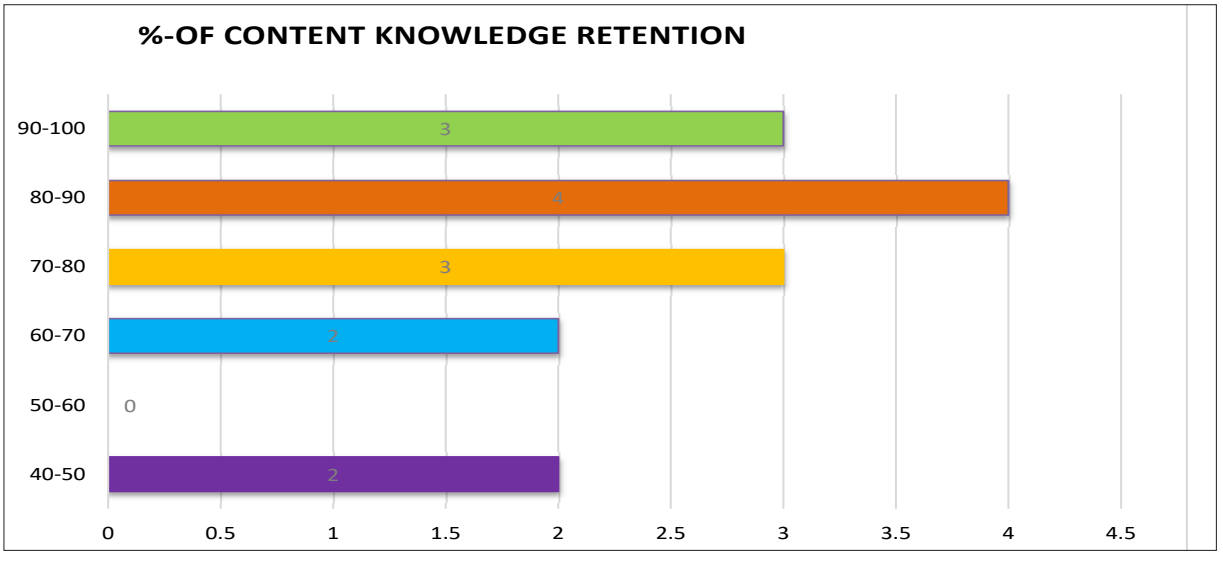


Chart-11 Content Knowledge Retention and Degree of knowledge Retention

Retaintion in Term of %	No. of Students
40-50	2
50-60	0
60-70	2
70-80	3
80-90	4
90-100	3

Regarding Knowledge Retention

It is evident from 4th assessment score of Treatment Group that knowledge retention was quite higher (score of the control Group= 32% and Treatment Group= 68%) than control Group. (Chart No. 11)

Regarding Improvement of Critical Thinking

It is evident from increase in proficiency of the Treatment Group to supply viable but wrong options. (Chart No. 12)

Conclusion

Analysis and interpretation of data indicate that self-assessment supported by external feedback, when required by the learners can improve knowledge retention, motivation and interest, and make them engaged learners and critical thinkers of content knowledge. Personalised learning under ideal set-up can be an efficient approach that can increase motivation, engagement and understanding. This model also increases the learning efficiency and learning effectiveness (Gomez, Zervas, 2014). So, the objectives of the personalised learning model and the product of self-assessment converge at a given point. Thus, self-assessment approach can be used as a tool to provide benefits of the Personalised Learning Model in a traditional classroom situation without modifying one-size-fits-all instructional approach or changing the school set-up or time table that is required for a customised learning plan of individual students.

Implications to the Teaching-Learning Process

(i) Learning is a personalised experience that allows one to expand their knowledge, respective skills and understanding. Therefore, adopting self-assessment learning strategies helps to meet those objectives without modifying traditional instructional strategies.

(ii) Learners identify and analyse the standards or criteria that are applied to assess their work.

(iii) Understand what they have done well and what they could do better next time.

(iv) To enhance learners' accommodation and executive skills.

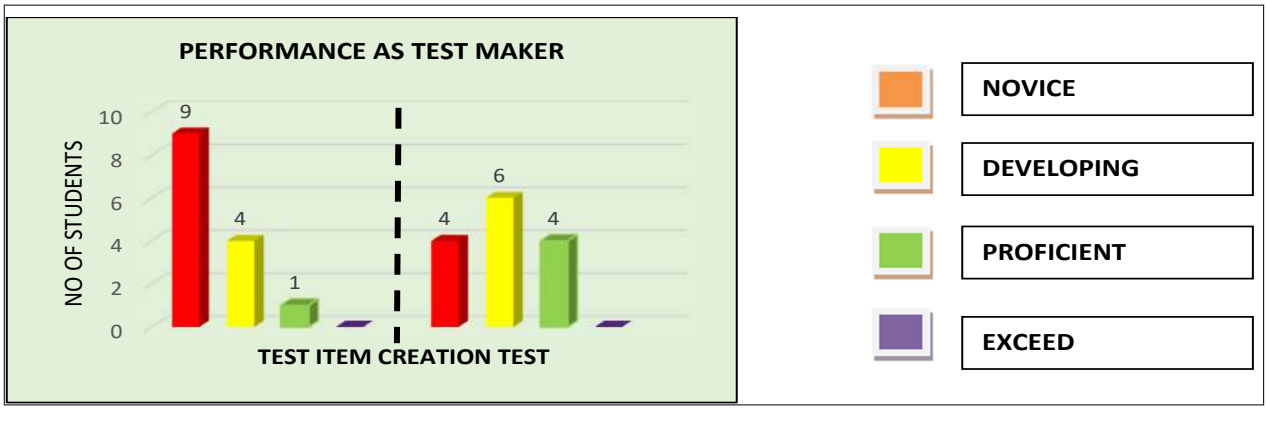
Acknowledgements

The authors gratefully acknowledges the support received from Prof Manasi Goswami, Dean of Sciences of Regional Institute of Education, Bhubaneswar at various stages of preparation of this manuscript.

References and Readings

1. Andrade, H., and Du, Y. (2005). Student Perspectives on Rubric-referenced Assessment, Practical Assessment, Research, and Evaluation, 10(3). *https://doi.org/10.7275/0cjq-8q66*
2. Andrade, H., L. (2018). Feedback in the Context of Self-assessment, In A. A. Lipnevich & J. K. Smith (Eds.), The Cambridge Handbook of Instructional Feedback (pp. 135–150), Cambridge University Press. *https://doi.org/10.1017/9781316832134*

Chart-12 Categories of Student based on Percentage of Viable Options they had Written Against Lead Statement of MCQ



3. Andrade, H., L., and Brown, G., T., L. (2016). Students' Self-assessment in the Classroom, In G. T. L. Brown & L. R. Harris (Eds.), Handbook of Human and Social Conditions in Assessment (pp. 247–263), Routledge.

4. Black, P., and Wiliam, D. (1998). Inside the Black Box: Raising Standards through Classroom Assessment, *Phi Delta Kappan*, 80(2), 139–144, 146–148.

5. Boud, D., and Brew, A. (1995). Enhancing Learning through Self-Assessment. Assessment & Evaluation in Higher Education, 20(1), 5–13. *https://doi.org/10.1080/0260293950200101*

6. Boud, D. (2000). Sustainable assessment: Rethinking assessment for the learning society. Studies in Continuing Education, 22(2), 151–167. https://doi.org/10.1080/713695728

7. Brown, G., T., L., and Harris, L., R. (2014). The Future of Self-assessment in Classroom Practice: Reframing Self-assessment as a Core Competency, *Frontline Learning Research*, 2(1), 22–30. *https://doi.org/10.14786/flr.v2i1.24*

8. Dweck, C., S. (2006). Mindset: The New Psychology of Success, Random House.

9. Gredler, M,. E. (2009). Learning and Instruction: Theory into Practice (6th ed.), Pearson.

10. Gómez, S., and Zervas, P. (2014). A Roadmap for Self-assessment in e-learning, In Proceedings of the 8th International Conference on Education and New Learning Technologies (EDULEARN14) (pp. 1510–1519). IATED.

11. Hattie, J., and Timperley, H. (2007). The Power of Feedback, *Review of Educational Research*, 77(1), 81–112. *https://doi.org/10.3102/003465430298487*

12. Moely, B., E., and McDaniel, M., A. (2002). Metacognition and Learning: Theory, Assessment, and Instruction, Lawrence Erlbaum Associates.

13. Morin, A. (2022). Personalised Learning: What you need to Know, Understood.org. *https://www.understood.org/en/articles/personalized-learning-what-you-need-to-know*

14. Pintrich, P., R., and De Groot, E., V. (1990). Motivational and Self-regulated Learning Components of Classroom Academic Performance, *Journal of Educational Psychology*, 82(1), 33–40. *https://doi.org/10.1037/0022-0663.82.1.33*

15. Paris, S., G., and Paris, A., H. (2001). Classroom Applications of Research on Self-regulated Learning, *Educational Psychologist*, 36(2), 89–101. *https://doi.org/10.1207/S15326985EP3602_4*

16. Ross, J., A., Rolheiser, C., and Hogaboam-Gray, A. (2006). The Effects of Self-assessment on Student Learning: A Meta-analysis, *Educational Assessment,* 11(1), 1–31. *https://doi.org/10.1207/s15326977ea1101_1*

17. UNESCO. (n.d.). Quality and Learning Indicators: UNESCO's Framework on the Variables of Education Qualities, *https://www.unesco.org*

18. Zimmerman, B., J. (2000). Attaining Self-regulation: A Social Cognitive Perspective. In M. Boekaerts, P., R. Pintrich, and Zeidner, M. (Eds.), Handbook of Self-regulation (pp. 13–39). Academic Press.

19. Zimmerman, B., J. (2015). Self-regulated Learning: Theories, Measures, and Outcomes, In International Encyclopedia of the Social and Behavioral Sciences (2nd ed., Vol. 21, pp. 541–546). Elsevier. ❑

Shripad Krishna Belvalkar: An Outstanding Indologist of the Last Century—Part-II[#]

K Paddayya*

Contributions to Philosophy

Considering that Belvalkar obtained his third Master's degree in philosophy, it is no surprise that he not only took a deep interest in this branch of ancient Indian learning but left behind some very important writings. It is interesting to recall that during their student years at the Deccan College in the first decade of the last century, Belvalkar and his junior R.D. Ranade were already playing with the idea of bringing out a multi-volume publication in Indian philosophy. Once they settled down in their respective faculty positions (Ranade at the Fergusson College and Belvalkar at the Deccan College), they in fact prepared a regular plan to publish eight volumes covering the whole range of Indian philosophy. This was in 1918, and it was the first such attempt by the Indian workers. Unfortunately, its success was very limited and only the second volume was published in 1927.

This is History of Indian Philosophy : The Creative Period, jointly authored by Belvalkar and Ranade (1927). This book deals with the philosophical musings contained in the Brahmanas and Upanishads. There is something novel about this work. Unlike other existing writings on this topic, which are essentially narrative, Belvalkar and Ranade took into consideration the philological, stylistic and historical aspects of the Brahmana and Upanishadic texts. Also, desisting from the treatment of individual Upanishads as homogeneous texts, they identified disparate units in them. Based upon stylistic and theme-specific criteria, these units have been grouped into four chronological phases, viz. Brahmanical, Brahmanical-Upanishadic, Upanishadic and post-Upanishadic.

The volume deals with various topics such as world-creation, psychological and eschatological reflections, theories of the Absolute and Individual, and conceptions of Brahman, Atman, Prana and Purusha. Belvalkar and Ranade identify a "definite and natural evolution of thought and method" from one stage to another (Ibid.: 439-42). The overriding interest shown in cosmology in stages one and two gives way to eschatalogical reflections in the later stages. The immanence of the Absolute emphasised in stage one gives way to its transcendence in stage two. In stage three the conceptions become more idealistic and negative (nirguna). In stage four theistic or sectarian trends emerge which Belvalkar and Ranade attribute to the eastward spread of the Aryan groups and their contact with the local cultural traditions and belief systems (Ibid.: 10-22).

This joint work apart, Belvalkar has his own contributions on specific topics in Indian philosophy. As early as 1923 he published a book on the Brahmasutras (Belvalkar 1923). It is an excellent introduction to Sankaracharya's famous commentary on the Brahmasutras which Belvalkar commends for its "flowing philosophic style, perspicacity of reasoning and high intellectual calibre." In his commentary (chapter 2, quarter 1) Sankaracharya took up for discussion a number of high-order topics in philosophy, ranging from heterodox Smritis to Brahman as omniscient and omnipotent. In chapter 2, quarter 2, he takes up topics which deal with the refutation of Samkhya philosophy, Buddhist and Jain doctrines, and theism. Belvalkar's own elaborate explanatory notes about the Brahmasutras and Sankara's comments about these enable students and interested lay persons alike to understand the great teacher's expositions of high-order philosophical topics and how these were found effective in combating Buddhist and Jain doctrines. The German scholar F. O. Shräder was therefore led to say that Belvalkar's book is "a most useful and stimulating work: exactly what is wanted by young students of Indian philosophy" (as quoted by Altekar 1957: xxvi).

Another major contribution of Belvalkar to Indian philosophy concerns the half a dozen lectures which he delivered in Calcutta University in 1925 as part of the Shree Gopal Basu Mallik Lecture Series on Vedanta philosophy (Belvalkar 1929). In continuation

---

[#]The Article is in two Parts. First part was published in the University News Vol 63(27) July 07-13, 2025).

**Emeritus Professor and Former Director, Deccan College (Deemed University), Pune 411006. E-mail: k.paddayya@gmail.com*

of the developmental-contextual perspectives which he and Ranade had adopted in their joint work cited above, Belvalkar makes three common sense and yet profound observations. First, about the very definition of philosophy. To him, philosophy is not a system of arcane doctrines but "a criticism of life" and arises from man's continuous efforts to interact with the world around and make himself a part of it (Ibid.: 1). Secondly, philosophical speculations are dynamic and experience change. Adopting an evolutionary-adaptational perspective, Belvalkar asserts that at any time, philosophical stipulations are shaped or influenced by contemporary political, social and religious conditions (Ibid.: 1, 5). It is these perspectives which he adopts in his own study of Vedanta philosophy. Belvalkar warns against the equation of Vedanta with Sankara's monistic framework. He says that its roots trace back to the Upanishads, Brahmanas and the Bhagvadgita and that it also covers the writings of Ramanuja, Madhva and other later workers. While granting the regular status of philosophy to Advaita Vedanta of Sankaracharya, Belvalkar clearly says that a majority of the Vedantic texts do not go beyond the level of exegetic theology.

Adopting this historical-contextual approach, Belvalkar devotes the next four chapters of his book to the Vedantic doctrines as expounded in the Upanishads, Bhagvadgita, Brahmasutras, and pre-Sankara Vedantic formulations of Bhartrprapancha and Gaudapadiyas, respectively. The last chapter is about Sankara and his life and times. In these chapters Belvalkar takes us on a stimulating journey from the Upanishadic expositions about the Absolute to Sankara's Mayavada, enlivening the discussions with comparisons with European philosophical works.

Belvalkar also published a detailed paper on four hitherto unnoticed Upanishads which he found in the Adyar library of Madras (Belvalkar 1925b). These are the Baskala, Chagaleya, Arseya and Saunaka Upanishads. The Arseya Upanishad contains an interesting discussion between Vishwamitra, Vasishta and other sages about the definition of Brahman.

Apart from the importance of the topics dealt with in them, all these publications of Belvalkar are equally important from a methodological point of view because they reflect his close application of comparative and systematic approaches. Belvalkar was also an acclaimed teacher and won high respect for his lectures at the Deccan College and other places in the country on various topics covering the Sanskrit language, texts and grammar, religion, philosophy and ancient Indian culture.

Belvalkar as an Institution-Maker

Belvalkar's reputation as an illustrious scholar and inspiring teacher is matched in equal measure by his excellent and formidable organisational abilities. As mentioned in the beginning, both the Bhandarkar Institute and Deccan College owe a real debt of gratitude to him – the former for its very establishment in 1917 and the latter for its reopening in 1939 after a complete shutdown by the government for five years. In both these cases, it is Belvalkar's feelings of gratitude to and respect for one's own alma mater, reverence to elders and one's own teachers and, of course, devotion to Indological studies and a deep interest in promoting and securing their future, which deserve our recognition and appreciation. All of us know that it is a group activity which accounts for the creation and nurturing of institutions and this is true in both of these cases. At the same time, we must acknowledge that Belvalkar's role was much more than that of primus inter pares. He deserves full credit for idea-conception and then swinging into action for moving men and matters.

The Bhandarkar Institute was established on 7th July 1917 which marked the 80th birth anniversary of Sir Ramakrishna Gopal Bhandarkar. There is a 60-page report about the whats and hows of the founding of the Bhandarkar Institute (Belvalkar 1919). In an informal meeting which he had with a few other scholars in Pune in May 1915, Belvalkar mooted the "practicability of establishing an Oriental Research Institute in Pune itself" for promoting Oriental studies on scientific lines and name it "after Sir R. G. Bhandarkar than whom there existed no other Sanskrit scholar more worthy of having his name carried down to posterity in that manner" (Ibid.: 5). The next two years witnessed a flurry of activity – approval of the idea in a public meeting of scholars held in Poona a few months later; formation of a working committee for this purpose with Belvalkar as one of the secretaries; preparation of a plan for this purpose; proposal to establish the institute on Bhandarkar's 80th birth anniversary and also present him with a Festschrift containing research essays; sending

a circular to about 5000 people soliciting support and donations; obtaining Bhandarkar's consent for this purpose and also requesting him to donate his personal library of books to the proposed institute; obtaining provincial government's permission to transfer the rich collection of manuscripts from the Deccan College to the new institute; purchasing from donations a big piece of land for the institute and even initiating building construction. All went well and the Institute was inaugurated, as had been envisioned, on Bhandarkar's 80th birth anniversary by the Governor Lord Willington, who called the event "an occasion memorable in the history of Oriental scholarship in India". He presented the Festschrift (assembled largely due to the initiative and efforts of Belvalkar) to Bhandarkar and credited him with being "the first among Indians to apply to the ancient Indian learning of his country the modern methods of criticism and research" (Ibid.: 42). Bhandarkar expressed thanks for the honour done to him and hoped that Oriental research would be pursued at the new institution "along the most approved and critical methods of the West" (Ibid.: 46). Readers are familiar with the enviable place which the Bhandarkar Institute has carved for itself in Indological studies in the next one hundred years.

Belvalkar's close links with and contributions to the Bhandarkar Institute continued till his last days. As the elected Honorary Secretary (from 1927 to 1933) of the Institute which was yet to have a guest-house, he and his wife extended at their own nearby bungalow, Bilvakunja loving hospitality to many of the senior visiting scholars from India and outside and even took them to nearby places like Karle caves and Alandi. Soon with a grant secured from the Nizam of Hyderabad, Belvalkar built a guest-house for the Institute. Jointly with P.K. Gode as the Secretary, he initiated a special lecture series in 1918 and the All-India Oriental Conference in 1919. Also, major research projects such as P.V. Kane's Dharmasastra and S. S. Pathak's Mahabhasya Sabdakosa were initiated.

The critical edition of the Mahabharata completed by the Institute in 17 volumes has been hailed as a landmark in the history of critical Sanskrit scholarship. Here, too, Belvalkar played the originator's role. He mooted the idea of a critical edition in his review essay titled "Sankaracharya va rahasyakar" (Marathi) on Lokamanya Tilak's Gitarahasya (in Marathi) published in the January and February 1918 editions of the magazine Vividhajnanavistara (Belvalkar 1918). In the very opening pages of this review, Belvalkar states that it would be too bold a claim to say that all events and happenings mentioned in the great epic have an equal degree of credibility and that no later accretions entered the text. He therefore strongly felt the need to bring out a critical edition based on objective methods of research by the Indian scholars themselves. It was this idea which was placed before the March 1918 meeting of the Bhandarkar Institute's Regulating Council. It was welcomed, particularly by Balasaheb Pant Pratinidhi of Aundh, who volunteered to donate a sum of one lakh rupees for undertaking this project. Soon, a project outline was prepared and circulated inside and outside the country. A formal beginning of this great project took place on 1ST April 1919 (Gudipadwa or New Year Day) with a short address by Professor Bhandarkar himself, who called the text an encyclopaedia of ideas, conceptions, institutions, manners and customs of ancient India.

With some initial work done by N. B. Utgikar, V. S. Sukthankar took charge as the paid General Editor of the project in 1925 and remained in that position till his death in 1943. He published the critical editions of Adi, Virata, Udyoga and Aranyaka Parvans. Upon his death, Belvalkar shouldered the responsibilities of General Editor from 1943 to 1961 and edited the Bhisma, Shanti, Ashramavasika, Mausala, Mahaprasthanika and Svargarohana Parvans (Belvalkar 1941-1966). Fittingly, he was honoured with a silver medallion by President S. Radhakrishnan for his role in the project's genesis and success at the completion ceremony held at the Institute in September 1966.

Belvalkar as an Institution-Saviour

Laudable too is Belvalkar's role as an institution-saviour. He brought back to life the Deccan College, his own alma mater and where he served on the faculty for 18 years, from total closure for five years. The matter is briefly like this. In 1934, the Bombay government shut down the College due to a drastic reduction in student enrolment and filed a suit in the Pune district civil court seeking permission to sell all properties to a Parsee educational society. Belvalkar took the lead once again to oppose this move. He motivated and brought together many other past students, formed

the Deccan College Past Students' Association and made it the principal defendant in the court proceedings. Further, he enlisted the support of the famous barrister M. R. Jayakar (with P.V. Kane and M. R. Gandhi as advisors) to defend the case. The proceedings were protracted, and Belvalkar himself appeared as a witness on more than one occasion. (Mrs. Belvalkar too attended the court sessions.) In a detailed judgement, the case was dismissed in 1936 by the learned judge D.D. Nanavati, who directed the government to reopen the College (Nanavati 1936). Finally, thanks to a Consent Decree given by the Bombay High Court, the Deccan College was reopened in August 1939 as a Postgraduate and Research Institute for specialised studies in ancient languages and history. Thanks to the dedicated efforts of Professors S. M. Katre, H. D. Sankalia and Irawati Karve and their colleagues, the Institute achieved national and international status in the short span of a quarter-century. One simply shudders to imagine what the status of Sanskrit studies, linguistics, archaeology and anthropology in India would be like now if Belvalkar's bold initiative did not take place. The Deccan College Past Students' Association he formed, is still a vibrant body working for the overall interests of the Institute and has come to its rescue on some other occasions too.

True to the old traditions of the land, Belvalkar always treated his teachers and elders with high respect. We have already noted how his reverential attitude towards Bhandarkar culminated in the founding of an institution in his name. Belvalkar treated Lokamanya Tilak too also a past student of the Deccan College) as a Guru-like figure and met him on several occasions. He has recorded his reminiscences of Tilak (Belvalkar 1925c). Reference has already been made to his review essay on Tilak's Gitarahasya. Tilak passed away in 1920. As a member of the Deccan College Gymkhana, Belvalkar took the lead and formed a Tilak Memorial Committee. They procured a large and aesthetically pleasing cupboard of mahogany wood with a miniature bronze figure of Tilak set at the top, stacked it with a fine collection of rare books about Vedic studies in English and other European languages they had specially procured, and presented it to the Deccan College library on the occasion of Tilak's first death anniversary. This cupboard still occupies a special place in the Institute's library and stands as a fitting memorial to Lokamanya's own rich and original contributions to Indological scholarship. An abiding example of alumni showing respect to one another and to their alma mater! Also knowing as he did that Tilak, notwithstanding his differences with Bhandarkar on certain social issues child marriage of girls, gave his full support to the founding of a research institution in Bhandarkar's name and even contributed a fine research essay titled "The Chaldean and Indian Vedas" to the felicitation volume that was presented to him on his 80th birthday, Belvalkar proposed the establishment of an Assyrio-Babylonian wing at the Bhandarkar Institute but this failed to materialize (Altekar 1957: xv). Belvalkar's respect was no less to the other senior scholars of Indology in India and outside, and he contributed research articles to about 20 felicitation or memorial volumes.

Belvalkar was a decorated student at both school and college levels and won several scholarships and prizes. As a scholar, he received many awards and honours. He was not only closely associated with the institution of the All India Oriental Conference but also regularly attended its annual sessions. He presided over the philosophy and Vedic sessions and was elected as General President of the 12th annual session held in Banaras from 30 December 1943 to 2nd January 1944. He provided inspiration to younger workers in these sessions. He was an elected honorary fellow of the Royal Asiatic Society in London and also of the Asiatic Society in Bombay. The Swedish scholar H. Sköld called him 'New Bhandarkar' (Altekar 1957: xxvii). He received a certificate of merit from the President of India for scholarship in Sanskrit studies. A committee headed by Professor S. Radhakrishnan with Dr. A.S. Altekar as the Managing Editor prepared an impressive felicitation volume comprising over 40 essays contributed by leading scholars of the day and it was presented to him by President B. Rajendra Prasad in celebration of his 75th birth anniversary at the 19th annual session of All India Oriental Conference held in Delhi in December 1957 (Dandekar 1959: 97). Just a few months before his demise, Belvalkar received a silver medallion in Poona city from President S. Radhakrishnan for his pivotal role in the preparation of the critical edition of Mahabharata.

Belvalkar's wide-ranging Indological scholarship and his scientific approach to it, his deep respect to teachers and elders, and his devotion to and

concern for the welfare and progress of the institutions with which he was associated have some relevance in the context of ongoing efforts at the indigenization of ancient India scholarship and pervasive mechanistic mode of higher education in the country. He would have surely endorsed these moves because he himself took the lead and, enlisting the support of like-minded persons, started the Poona Sanskrit College in 1927 for promoting simultaneously the Shastric mode of Sanskrit learning. But in all probability, he would have tagged a caveat to these moves: 'But don't discard the critical and comparative method, for a true and mature understanding of ancient India and its legacy calls for combined use of Indian and Western strategies of learning.'

References and Readings

1. Altekar, A., S. (1957). *Felicitation Volume Presented to Professor Shripad Krishna Belvalkar,* Motilal Banarasi Dass: Banaras.
2. Altekar, A., S. (1957). A Biographical Sketch of Dr. S. K. Belvalkar, In *Felicitation Volume Presented to Professor Shripad Krishna Belvalkar* (A. S. Altekar Ed.), pp. xi-xxxi, Motilal Banarasi Dass : Banaras.
3. Belvalkar, S., K. (1914). *Rama's Later Story or Uttara-Rama-Charita – An Ancient Hindu Drama by Bhavabhuti,* Harvard University Press : Cambridge (Massachusetts).
4. Belvalkar, S., K. (1915). *An Account of the Different Systems of Sanskrit Grammar*. Poona: Published by the author.
5. Belvalkar, S., K. (1916). *Descriptive Catalogue of the Government Collections of Manuscripts Deposited at the Deccan College, Poona,* Government of Bombay : Bombay.
6. Belvalkar, S., K. (1918). Srisankaracharya va rahasykar (in Marathi). *Vividhajnanavistara ani Maharashtra Sahitya Patrika*, January issue, pp. 9-24; February issue, pp. 72-82. This is a review essay on Tilak's *Gitarahasya*, with a reply from Tilak, pp. 83-85.
7. Belvalkar, S., K. (1919). Report of the Working Committee of the Bhandarkar Oriental Research Institute, Poona city, from 6th July 1915 to 10th September 1918. *Annals of the Bhandarkar Oriental Research Institute* 1918-1919, Vol. 1, Part 1, Appendix, pp. 1-58.
8. Belvalkar, S., K. (1923). *The Brahmasutras of Badarayana with the Comment of Sankarachrya*. Poona: The Oriental Book-Supplying Agency.
9. Belvalkar, S,. K. (1925a). The Application of a Few Canons of Textual and Higher Criticism to Kalidasa's Sakuntala, *Asia Major*, Volume II, Fascicule 1, pp. 79-104.
10. Belvalkar, S.,K. (1925b). Four Unpublished Upanishadic Texts, *Report of the Third Oriental Conference*, Madras, pp. 1-14.
11. Belvalkar, S., K. (1925c). Reminiscence of Lokmanya Tilak (in Marathi), In *Lokmanya Tilak Yanchya Athavani va Akhyayika* (S. V. Bapat Ed.), Volume 2, pp. 61-74, S. V. Bapat: Pune.
12. Belvalkar, S., K. (1929). *Shree Gopal Basu Mallik Lectures on Vedanta Philosopy*, Part 1, Bilvakunja Publishing House: Poona.
13. Belvalkar, S., K. (1937). Miscarriage of Attempted Stratification of the Bhagvadgita. *Journal of the Bombay University*, Volume V, Part VI, PP. 63-133.
14. Belvalkar, S.,K. (1939). The So-called Kashmir Recension of the Bhagavat Gita, *New India Antiquary*, Volume II, No. 4, pp. 211-251.
15. Belvalkar, S.,K. (1949). The Origin and Function of the State according to the Rajadharmaparvan, *Annals of the Bhandarkar Oriental Research Institute*, Volume 29, pp. 293-301.
16. Belvalkar, S., K. (1941-1966). *Critical Editions of the Bhishma, Shanti, Ashrramavasika, Mausala, Mahaprasthanika and Svargarohana Parvans of the Mahabharata*, Bhandarkar Oriental Research Institute :Poona.
17. Belvalkar, S., K. (1966). Contents of the Shantiparvan. In *Shantiparvan*, Volume XVI, Introduction, pp. clxxxi-ccv, Bhandarkar Oriental Research Institute : Poona.
18. Belvalkar, S., K. and R. D. Ranade (1927). *History of Indian Philosophy – The Creative Period*. Poona: Bilvakunja Publishing House.
19. Bhandarkar, R., G. (1864). *First Book of Sanskrit*, Karnatak Publishing House :Bombay.
20. Bhandarkar, R.,G. (1868). *Second Book of Sanskrit,* Karnatak Publishing House: Bombay.
21. Bhandarkar, R.,G. (1933). The Critical, Comparative and Historical Method of Inquiry, as Applied to Sanskrit Scholarship and Philology and Indian Archaeology, In *Collected Works of Sir R. G. Bhandarkar*, Volume I (N. B. Utgikar and V. G. Paranjpe Eds.), pp. 362-393, First published in 1888.
22. Dandekar, R., N. (1959). Summary of the Speech Made in Connection with the Presentation of the Felicitation Volume to Dr. Belvalkar, *Proceedings and Transactions of the All India Oriental Conference*, Nineteenth Session, Delhi, Part I, p. 97.
23. Nanavati, D., D. (1936). *Judgement Delivered by the District Judge, Poona (The Late Mr. D.D. Nanavati, I. C. S) in the Deccan College Suit*, 1936, pp. 1-46, Secretary, Deccan College Past Students' Association :Poona.
24. Paddayya, K. (2017). From Profane Time to Sacred Time, *Annals of the Bhandarkar Oriental Research Institute*, Volume 98, pp. 144-152. ❑

Accreditation in Higher Education: A Comparative Analysis of Two Key Studies

Amar Nath*

This article review has been conducted to critically evaluate the accreditation and ranking framework as a central component of quality management in higher education in India. Two highly cited scholarly articles were selected for review, each employing different methodologies, approaches, and findings. A comparative analysis was performed to examine the contrasting discourses present in academia regarding accreditation and quality assurance frameworks. Rather than relying on a vast array of literature, the author employed two scholarly research articles to conduct an in-depth review to comprehend the intricacies of the accreditation framework. The articles under scrutiny examined accreditation practices within the Indian context while comparing them to a global perspective. The review further highlights the significance of accreditation in enhancing educational quality, yet identifies several deficiencies in the Indian accreditation system that require immediate intervention.

Higher education plays an indispensable role in the growth and development of any nation. It serves to produce a skilled and educated workforce, which is vital for promoting innovation, entrepreneurship, and economic advancement. Furthermore, higher education propels research and development, resulting in the invention of new technologies, products, and services. It also promotes critical thinking, creativity, and lifelong learning, which are fundamental for personal growth and societal progression. With the progression of modernisation, there is a rapid increase in global demand for a knowledgeable workforce. The quality of higher education has consistently been a focal point for policymakers, administrators, and governments globally to ensure the induction of skilled personnel in both the service and industry sectors. Nevertheless, higher education plays a much broader role in shaping the character and essence of society beyond merely serving as a supplier of human capital. Recognising the contribution of higher education in the multidimensional development of any nation, academic quality assurance systems have been integrated into higher education. India, too, has implemented such quality assurance mechanisms, namely, ranking and accreditation bodies, to align with global standards in the quality of higher education.

*Research Scholar, National Institute of Educational Planning and Administration, 17-B, Sir Aurobindo Marg, New Delhi.E-mail : amarnath@niepa.ac.in

Reviewed Articles on Accreditation in Higher Education

The reviewed articles critically assess the accreditation and ranking framework as a pivotal element in the quality management of higher education. The first article, 'Accreditation and Ranking of Higher Education Institutions (HEIs): Review, Observations and Recommendations for the Indian Higher Education System', provides an analysis of the Indian university accreditation and ranking systems, evaluating their credibility and effectiveness relative to global standards and frameworks. The second article, 'Impact of Accreditation on Quality and Excellence of Higher Education Institutions', examines the effectiveness of the accreditation framework in promoting excellence within Higher Education Institutions (HEIs) through a comprehensive literature review and empirical research findings.

Beyond the Abstract: The Relevance of the Comparative Article Review

The two articles under review explore the phenomenon of quality and excellence within the higher education sector. However, the articles employ distinct methodological frameworks to assess the effectiveness of accreditation and ranking systems in enhancing quality in higher education. While there are areas of convergence between the articles, there are also significant divergences. A comparative analysis of these two articles may yield fresh insights into quality management practices in higher education. The objectives of this comparative review of the articles are as follows:

- To elucidate the accreditation framework for quality assurance in higher education in India.
- To juxtapose Indian quality assurance mechanisms with global benchmarks and practices in quality management within the realm of higher education.

- To scrutinise the methodological approaches of both articles to discern diverse perspectives on quality management.
- To critically examine the findings of the two research papers to offer a more comprehensive understanding of the subject under discussion.

This comparative analysis is undertaken to fulfill the objectives delineated above.

Thesis of the Article Review

This review of two scholarly articles examines the efficacy and influence of accreditation on the quality of higher education within Indian Higher Education Institutions (HEIs). Through a critical analysis of the strengths and weaknesses inherent in the accreditation process and its impact on the educational quality delivered by Indian HEIs, author propose recommendations aimed at enhancing accreditation mechanisms to optimise quality management within the realm of higher education. The review emphasises the significance of accreditation and classification frameworks in the enhancement of higher education quality; however, several deficiencies were identified, necessitating immediate intervention.

Contrasting Central Themes: A Comparative Analysis

Article 1, 'Accreditation and Classification of Higher Education Institutions: Review, Observations, and Recommendations for the Indian Higher Education System', published in the TQM Journal, conceptualises quality in academia as 'fitness for purpose' through various forms, ideas, and practices pertaining to diverse stakeholders. This article advocates for benchmarking, specific criteria, parameters, norms, and standards for quality assurance while cautioning institutions against adopting a purely compliance-driven approach to quality. The article recommends Total Quality Management (TQM) as a management approach for educational institutions, emphasising quality as a concept of continuous improvement based on the active involvement of all stakeholders to benefit various parties, including students, industry, teachers, and society, among others. The article also provides further details on the Indian accreditation and ranking frameworks (namely NAAC and NIRF). The authors conducted a comparative analysis of the Indian quality assurance frameworks in relation to global frameworks, such as the Times Higher Education World University Ranking.

Article 2, 'Impact of Accreditation on Quality and Excellence of Higher Education Institutions', explores the historical evolution of the accreditation process as a mechanism for quality assurance and the establishment of accreditation institutions such as RICS, IET, NEASC, and MSACS, worldwide. The article adopts a managerial perspective, defining excellence in higher education through models such as EFQM and Baldrige, and scrutinises the methodological changes in NAAC's functioning from its old methodology (2007) to the new methodology (2017). The authors highlight the myriad benefits of accreditation in various aspects of quality in higher education. It is noted that Article 2 would benefit from greater conceptual depth.

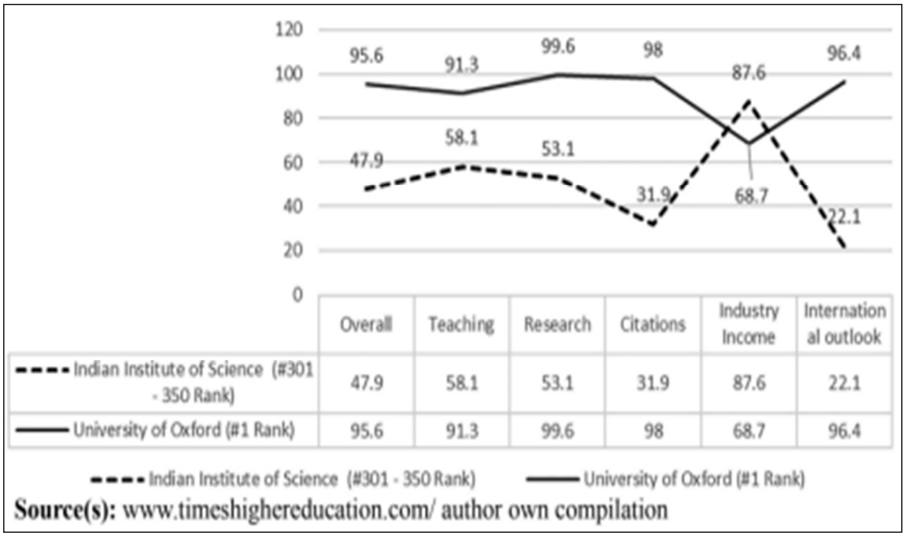
Critical Analysis of Methodologies

The initial article employs an exploratory research methodology to examine the efficacy of the Indian ranking and accreditation system in comparison to global standards. Secondary data is utilised to assess the performance of Indian Higher Education Institutions (HEIs) on both national and international quality metrics. The research design incorporates a comparative analysis aimed at contrasting the scores of Indian HEIs in the Times Higher Education (THE) ranking with those of leading global institutions. It is posited that such comparative analysis may possess methodological limitations in accurately depicting the accreditation framework due to contextual variances. In contrast, the second article employs a survey method, analysing the responses of 3,000 students regarding factors impacting their decision-making process when choosing an institution for admission. The survey instrument included 13 factors affecting student admission choices, encompassing classification and accreditation status. Nonetheless, it is contended that while the student survey provides necessary insights, it is insufficient on its own to substantiate the accreditation mechanism as a driving force for quality in higher education.

Comparison of Findings

The findings of the two research papers exhibit both similarities and differences, attributable to their distinct methodological approaches. Article one identifies that the Indian accreditation and ranking

Annexure 1



	Overall	Teaching	Research	Citations	Industry Income	International outlook
Indian Institute of Science (#301 - 350 Rank)	47.9	58.1	53.1	31.9	87.6	22.1
University of Oxford (#1 Rank)	95.6	91.3	99.6	98	68.7	96.4

Indian Institute of Science (#301 - 350 Rank) — University of Oxford (#1 Rank)

Source(s): www.timeshighereducation.com/ author own compilation

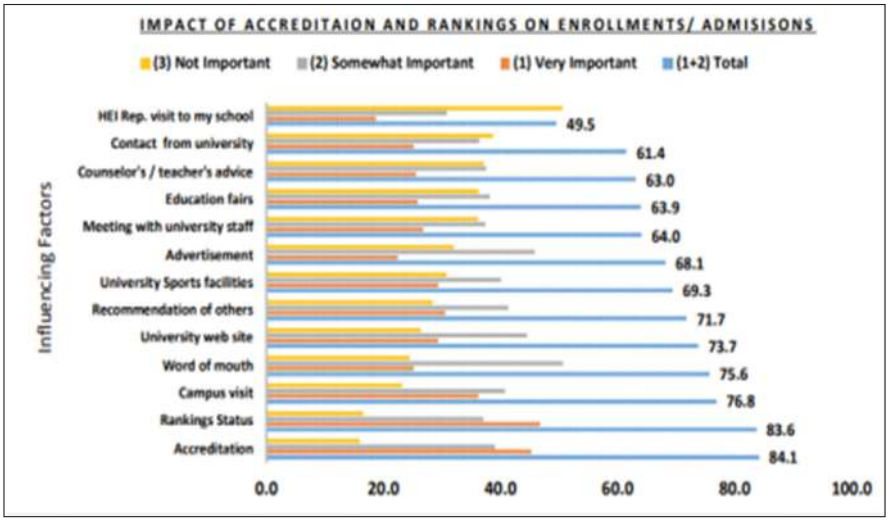
framework aligns with global standards in certain parameters. The study discerns teaching and learning, research, and industry collaboration as common parameters in accreditation and ranking processes. By juxtaposing India's top-ranked university by NIRF and the highest-ranked university in THE ranking, IISc Bangalore, with Oxford University (highest ranked in THE ranking), the study indicates that IISc achieves 53.1% in research and 31.9% in citations, as opposed to 99.6% in research and 98% in citations achieved by Oxford University in THE ranking (see Annexure 1). The study elucidates that Indian accreditation and ranking agencies tend to evaluate leniently on comparable parameters, granting high scores in contrast to the stringent practices of global accreditation and ranking bodies. Additionally, literature suggests that 'research and citations' are crucial for attaining high positions in global rankings. The shortfall in rigorous research and publications ostensibly hinders Indian higher education institutions from securing top positions in global rankings.

The survey conducted in Delhi-NCR, as reported by the authors of the second research paper, reveals that 84.1% of students prioritise the 'accreditation status' of institutions over ranking status (see Annexure 2). This underscores the significance of accreditation status in influencing students' admission decisions. The study asserts that the accreditation framework confers various advantages on educational institutions, including academic reputation, the enhancement of research and innovation, and strengthened industry connections. Both articles emphasise the significance of the accreditation framework in ensuring the quality assurance of higher education. Article 1 spotlights a 'performance gap' between Indian accreditation bodies and their global counterparts due to the leniency of the former. Article 2 eloquently elucidates the potential benefits of accreditation grounded in empirical studies. Collectively, both research papers furnish a comprehensive understanding of institutional accreditation and its associated benefits.

Discussion, Conclusions, and Implications

The comparative reviews of both research papers afford a detailed and comprehensive understanding of concepts such as academic quality, institutional excellence, quality management, and assurance practices. Both articles examine the accreditation

Annexure 2



process as a mechanism for quality assurance and its practical implications. The articles also scrutinise the current accreditation and ranking frameworks (NAAC and NIRF) from a global perspective. Article 1 critically examines the procedural conduct of Indian accreditation and ranking bodies, while the second article offers empirical evidence to substantiate the significance of accreditation in the quality assurance of higher education.

The articles under review compare national and global accreditation and ranking frameworks to explore essential criteria, indicators, and standards of accreditation and ranking that can provide valuable insights for higher education institutions to enhance their quality and competitiveness. The researchers establish the significance of the accreditation and ranking framework in quality enhancement and, consequently, improved life opportunities for growth and development. However, it is suggested that distinct accreditation and ranking standards be devised for different continents and countries at varying stages of economic development. The current accreditation and global ranking framework are predominantly guided by Western standards of quality. Quality notations should be contextualised, and indigenous knowledge and research should be promoted rather than pursuing Western quality standards.

Suggestions for Further Studies

The burgeoning Indian economy necessitates an urgent emphasis on higher education. Quality and standard-setting institutions in India, such as the National Assessment and Accreditation Council (NAAC), are currently beset by numerous structural and functional challenges. The referenced research papers offer valuable insights for administrators, government bodies, Higher Education Institutions (HEIs), and accrediting agencies. Further empirical research is required in the domain of quality improvement. It is imperative to establish new standards and criteria for effective quality management. Rigorous empirical studies should be conducted to critically examine the operations of NAAC and the National Institutional Ranking Framework (NIRF), thereby ensuring transparency and equity in their processes. Quality parameters must be tailored to the local context without compromising global competitiveness, which necessitates comprehensive research. Quality should be viewed as an ongoing process rather than a static product, demanding incessant efforts to enhance, maintain, and deliver quality in higher education. The two research articles under discussion are invaluable resources for comprehending the quality assurance frameworks both nationally and internationally.

References and Readings

1. Fernandes, J., O. and Singh, B. (2022). Accreditation and Ranking of Higher Education Institutions (HEIs): Review, Observations, and Recommendations for the Indian Higher Education System, *The TQM Journal*, Vol. 34, No. 5, pp. 1013-1038. *https://doi.org/10.1108/TQM-04-2021-0115*
2. Kumar, Pradeep, Shukla, Balvinder and Passey, Don. (2021). Impact of Accreditation on the Quality and Excellence of Higher Education Institutions, Operational Investigation, 41, 151-167. 2 ❑

Guiding Principles of Life: Commitment, Involvement, and Confidence

Polavarapu Mallikharjuna Prasad, Chairman-cum-Managing Director, Coal India Limited delivered the Convocation Address at the 21st Convocation Ceremony at the National Institute of Technology, Rourkela on January 20, 2024. He said, "I urge all of you to dedicate yourself to the cause, ideals, principles, and requirements of our motherland. Inculcate the spirit of accommodation, concept of values, perception of the future, association with the best, capacity to invite, strength of character, and the power to right the wrong, and not wrong the right. Have an open and balanced mind. When you disagree with someone please try to at least understand in what way they could be right. A true professional is one who is prepared to accept a superior idea even from his inferior if it has merit." Excerpts

To begin with, I offer my Heartiest Congratulations and Best Wishes to the young graduates of today. I feel humbled to be standing in the holy hall of this 62 year old premium national level institute that has been impartingquality technical education in the country, igniting many young minds.

Dear students, feel proud that you are alumni of an institute that is filled with a long line of academic excellence, values, ethics, heritage and rich learning culture.

On this graduation day ceremony or *'Deekshaant Samaaroh'* the oath that you undertake "we shall utilise our knowledge, experience, and skills to the best of our ability to the service of the nation upholding the dignity and the integrity of our profession" is truly profound. In years to come, whatever professional career you may embark upon, let this oath be your guiding principle.

Today is a momentous day not only for those who have graduated, but also for the teachers who have academically nurtured yet another batch and for the parents as well who witnessed the culmination of cherished dreams in their children. The vibrancy, enthusiasm, excitement, thrill, and the pride of the graduation day is evident in the air. Today also marks the successful conclusion of many sleepless nights, sacrifices, struggles, the virtue of merit and the long hard labour. Cherish and remember the well-deserved moment.

You have successfully completed the knowing part. Now begins the growing part. The time has come for you to translate the acquired knowledge into action. Till now, as students you have been under the cocoon of protection and watchful eyes of your caring professors and parents who tended you with affection, and at times with admonition. From now on, you step into life as independent young individuals responsible for every action and decision that you make. You shall be embarking upon a great adventure called professional career. Be well prepared for it. Think hard and set up your career goals. Be guided by your own individual passion. Follow the profession that you most enjoy. Pursue what appeals you the best. An independent thinking mind is more potent than thoughts that are institutionalized. Unlike in the past, there are multiple opportunities spread before you today to create your own name and establish yourself as you want to be. What matters most is commitment, involvement, and confidence.

The beauty of human endeavour lies in possibilities. So, never stop dreaming and keep challenging yourself.

That way you will keep evolving and become a better version of yourself. No matter where you work or who you work with, be sensitive to your peers, helpful to your juniors and respectful to your seniors. In the words of Aurobindo, 'the purpose of life is not to live alone but to be of service to others'. Have a true concern for social responsibility.

As our great Nation is emerging as one of the fastest growing economies in the world, you are living in exciting times that offers diversified opportunities for professional growth. You are living in the times of information and communication explosion, you are living in the times of rapid technological advancements, you are living in the times of globalization and digitalization, you are living in the times of skill development and you

are living in times of expanding business opportunities.

With India on a high growth orbit industrially, professional opportunities for young engineers like you are plenty. Hon'ble Prime Minister of India, has recently said that the world looks at India as a pillar of stability, a trusted friend, and a global growth engine. India's power sector is growing exponentially with increase in capacity addition. So is renewable energy sector with solar and wind as twin growth engines. Steel, cement, construction and other infrastructure industries are booming. With the continuing structural reform and globalization, India is accelerating its growth rate. The growing Indian economy promises a brighter future for young engineers. Globalization means additional job opportunities. Because of its vast and highly talented Human Resource, India has become a favourite destination for many MNCs to set up their production lines in the country. The future is bright and you are part of that future in India.

Also, the country's Central Public Sector Enterprises match with the best global entities in terms of professional approach and compensatory packages, becoming favorite employment destinations.

You are living in a digital era marked by advanced technology which is disruptive in nature and in this landscape innovation and entrepreneurship have become more important than ever.

Some of you may go on your own, establishing businesses as young entrepreneurs. My best wishes to those bold individuals. I truly admire their spirit of adventurism for they will not only be fulfilling their own dream but help generate employment opportunities for others. It is essential for an entrepreneur to be adaptable and resilient to thrive in dynamic environments. Also be creative and innovative, self-reliant and independent.

Make your alma mater and the country proud of you. Alma Mater in Latin means "nourishing mother". NIT, Rourkela has nourished your education. Always give back to your Institute in whatever manner you can. It is not a mere obligation but a moral responsibility.

The propensity of life is that, it offers you success and failure, pleasure and pain in equal or at time in disproportionate amounts. This is a big change that you have to cope with as young adults. Take them in your stride with equal composure. Do not be deterred by setbacks. They do not stay long. They are like fleeting clouds which will be swept away by winds of your confidence.

Thomas Alva Edison, the inventor of electric bulb, put his failures in a brilliant perspective. He famously said he found 2000 ways of how an electric bulb does not work before he got it right.

I am sure you have all heard of Michael Jordan - the basketball legend. Once, he was asked what makes him such a successful player. He said "I've missed more than 9,000 shots in my career. I've lost almost 300 games. On 26 occasions, I have been trusted to take the game-winning shot but missed. I've failed over and over again in my life. And that is why I succeeded".

This teaches us one thing. Success is neither magical nor mysterious but a natural consequence of consistent application of basic fundamentals - the time tested hard work, perseverance, honest and sincere efforts.

Always be honest about your strengths, weaknesses and responsibilities. Coal India Limited, the company that I am a part of, is the largest corporate employer in the country and our greatest asset is Human Resource. I deal with many Executives at different levels. This experience has taught me one thing. I have noticed that the most successful executives are those who are confident about their strengths, at the same time being aware of their weaknesses. They are also the ones who are very conscious of their responsibilities. They also who do not hesitate to flag off the harsh realities and bring them to the attention, instead of dusting them under the carpet. This is intellectual honesty.

As young engineers, you are all aware of what Synergy is. That is, the combined effect is greater than the sum of separate effects. This is the perfect example of a *Team*. Concerted efforts produce better result than individual results. Always be a team member. Individually you may be brilliant but nurturing and developing team is important.

Leading a company like Coal India is a day to day challenge. We have been given a target to produce 780 Million Tonnes of coal by the end of this financial year. This, by any means is a daunting task, after having breached the 700 MTs production mark for the first time only a year ago. Most of our

mines are located in difficult geo-mining conditions. The engineers of these coal mining areas and skilled manpower have not been discouraged by these challenges and hardships. They encounter many difficulties, yet their unified concerted purpose is to produce the precious energy resource that the country needs for its development and progress. As a result, we are on course with the target. The point of my saying is that, difficulties will be many but one has to face them with confidence, composure and sense of responsibility.

Nearly 70% of India's electricity generation is coal based. Producing 80% of the country's entire coal production, Coal India's coal contributes to bulk of this generation. We load thousands of railway wagons every day to ensure our coal reaches the far flung corners of the country. We produce coal minimizing the impact on environment. Our operations continue round the clock, throughout the year in sweltering hot conditions, to heavy downpour, to chilling cold. We do not have the comfort of working in closed conditions. Our operations are exposed to the harsh natural elements.

In all the modesty I say, if we claim to be a successful coal mining company it is because we work as a *Team*. Some of our subsidiaries produce higher quantities of coal than their respective targets, and stand up for others lagging behind. But finally it is the *Team* Coal India that succeeds. I am also pleased to inform you that both our establishments share cordial and mutually beneficial relations. Mahanadi Coalfields Limited, our Odisha based subsidiary funded a few projects in 'Foundation to Technology & Business Incubation'- (FTBI) at NIT Rourkela. Under MCL's CSR umbrella we have supported the construction of 500 seated girl's hostel at NIT Rourkela. In principle approval in place to fund for the construction of Kendriya Vidyalaya - NIT Rourkela as well. Dear young friends, the country is in need of your knowledge and energy. With self- confidence it is time for you to go out and make a mark for yourself.

I am confident that many of you shall carve out successful careers. Amidst the soaring path of success, never let go of the human element in you. Keep the 'person' in you close to the 'professional' in you. Have an open and balanced mind. When you disagree with someone please try to at least understand in what way they could be right. A true professional is one who is prepared to accept a superior idea even from his inferior, if it has merit.

On this special day of your life I urge all of you to dedicate yourself to the cause, ideals, principles and requirements of our motherland. Inculcate the spirit of accommodation, concept of values, perception of the future, association with the best, capacity to invite, strength of character and the power to right the wrong, and not wrong the right.

Let that Character in you tower over the Power. That is the sign of a truly successful person.

Jai Hind !

❑

Attention Contributors!

The University News is committed to maintaining the highest standards of academic integrity and ethical conduct. Plagiarism, in any form, is considered a serious violation of these principles. Authors are responsible for ensuring the originality of their work; properly cite and reference all sources used in the manuscript, and provide appropriate attribution for ideas, concepts, and data that are not their own.

Manuscripts with evidence of plagiarism will be rejected. If plagiarism is detected after publication, the article may be retracted, and the author(s) may face further consequences.

We appreciate your commitment to maintaining the highest ethical standards in scholarly publishing.

Seminar on Sustainable Growth Strategies for MSMEs

The one-day State-level Seminar on 'Sustainable Growth Strategies for 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, recently. About 270 participants, including students, faculty members, 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). Dr. S Arun, Assistant Professor of Economics was the Coordinator of the event. 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 Saravanan, Principal, GTN Arts College delivered the Presidential Address, emphasising 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. Director, Dr. Durai Rethinam, Academic Director, Dr. N Markkandeyan, and Vice Principal (SSC) Dr. U Natarajan felicitated the event, commending the organisers for addressing a critical theme that aligns with national economic objectives.

The Technical Session on 'Government Policies and Support for MSMEs' was led by Ms S Vijayashanthi, Financial Counsellor, 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. She comprehensively covered both the central and state-level schemes and the practical insights offered regarding how MSMEs can access these benefits.

The next session was on 'Role of MSMEs in Job Creation and Inclusive Growth' which 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 emphasised 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 marginalised 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.

The Session on 'Financing and Investment Opportunities for MSMEs' was delivered by Ms R Uma Chandrika, Assistant Director, MSME Branch, Development and Facilitation Branch, Madurai. 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) proposed 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.

Environment Conclave on Combatting Plastic Pollution

The One-day Environment Conclave-2025 on 'Combatting Plastic Pollution' was organised by the Bir Tikendrajit University, Manipur in collaboration with the Directorate of Environment and Climate Change, Government of Manipur on June 19, 2025. The Chief Guest of the event was Dr. T Brajakumar Singh, Director, Environment and Climate Change, Government of Manipur. The President, Dr. Pawan Kumar Choudhary, Pro-Vice Chancellor, Bir Tikendrajit University and Guests of Honour, Dr. Elangbam Jadu Singh, former Principal, DM College of Science, Dhanamanjuri University, and Dr. Huidrom Birkumar Singh, Chief Scientist and Professor, CSIR-NEIST, Lamphelpat, Imphal, were also present. Dr. T Brajakumar Singh highlighted that it is our bounden duty to save our mother nature. To save our environment, it is inevitable for us to reduce the demand and minimise plastic use at possible. He emphasised that environmental research is essential for protecting the environment and converting it into policies that will benefit future generations.

The Convenor, Dr. Johnson Luwang Wahengbam delivered a keynote speech and emphasised the significance of commemorating World Environment Day. He explained in his lecture that people are constantly exposed to plastic in all forms. He underlined that we must defeat plastic pollution before it defeats us and emphasised the importance of implementing the three principles of reduce, reuse, and recycle in our daily lives for environmental protection. He later presented an awareness lecture to raise awareness of the negative effects of microplastic and nanoplastic exposure.

The Pro-Vice Chancellor, Bir Tikendrajit University, Dr. Pawan Kumar Choudhary, stressed the significance of the university's observance of World Environment Day in his Presidential Address. Climate change is happening, he explained, but we must be careful and approach the problem sensibly. Every person has a responsibility to contribute to the solution of environmental issues and to the preservation of Mother Nature's environment. He encouraged staff and students at the university to make the easy move of using less electricity and throwing away trash in the right place. These small traditions would have a huge positive impact on society.

Dr. Elangbam Jadu, former Principal, DM College of Science, emphasised the significance of environmental protection in the modern day. Forest ecosystems are crucial to combating climate change and emphasise the need for coordinated action. A thorough presentation on 'Scope of Bioprospecting and Bioeconomy in Manipur: A Few Viable Technologies of CSIR-NEIST' was given by Dr. Huidrom Birkumar Singh, Chief Scientist, CSIR-NEIST, Branch Laboratory Lamphelpat, Imphal. He encouraged the younger generation to pursue entrepreneurship as an inspiring career path and emphasised his desire to explore the state's unique bioresources.

Later, during a Vote of Thanks, Registrar, Dr. Pradeep Kumar Dey, emphasised that the primary objective of the conclave is to establish a dynamic forum for students, academicians, researchers, environmentalists, policymakers, and community leaders to work together and discuss urgent environmental issues. The conclave programme also included poster presentations for environmental protection and the fight against plastic pollution. The poster competition was participated in by the university students from different departments. Cash awards and certificates were given to the first, second, and third-place finishers.

International Conference on Vibration Engineering and Technology of Machinery

A three-day International Conference on 'Vibration Engineering and Technology of Machinery' is being jointly organised by the Indian Institute of Technology Guwahati, Assam from December 18–20, 2025. It aims to inspire collaboration, stimulate research, and advance state-of-the-art technologies, making it a pivotal event for academia, research institutions, and industry. It will bring together researchers, practitioners, and industry professionals to exchange ideas, share experiences, and explore

innovative solutions to contemporary challenges in vibration engineering and related fields. The Themes of the event are:

- Composites and Nano-structures.
- Rail Dynamics.
- Vehicle Dynamics.
- Vibration and Acoustic Control.
- Signal Processing and Parameter Estimation.
- Rotor Dynamics.
- MEMS, Smart Structures and Systems.
- Compliant Mechanisms and Topology Optimisation.
- Mini Power Trains and Unmanned Vehicles.
- Micro Turbines and Plasma Jet Engines.
- Vibration and Waves.
- Multi-physics and Flexible Multi-body Dynamics.
- Impact and Blast Resistant Design.
- Wave Propagation.
- Non-linear Vibrations.
- Probabilistic Models.
- Fluid Structure Interactions.
- Condition Monitoring and Machinery Diagnostics.
- Fracture, Fatigue and Damage Mechanics.
- Flutter and Aero Elasticity.
- Prognostic Health Management.
- Digital Twinning and Machine Learning.
- Renewable Energy and Climate Change.
- Guidance, Navigation, and Control Technology.
- Machining Dynamics and Chatter.
- Additively Manufactured Structures.
- Underwater Dynamics and Control.

For further details, contact the Organising Secretary, Department of Mechanical and Civil Engineering, Indian Institute of Technology Guwahati, Assam-781039, Phone No: 0361-258- 3576 / 0361-258-3326, E-mail: *vetomac@iitg.ac.in, rkmittal@iitg.ac.in* and *shrishi@iitg.ac.in*. For updates, log on to: *https://event.iitg.ac.in/vetomac*

Faculty Development Programme on AI and Deep Learning

A twelve-day Faculty Development Programme on 'AI and Deep Learning: Trends and Future Development' is being organised by the Electronics and ICT Academy, NIT Warangal in association with the Department of Computer Science and Electrical Engineering, International Institute of Information Technology (IIIT) Bhubaneswar from September 08-19, 2025. The event is sponsored by the Ministry of Electronics and Information Technology (MeitY), Govt of India. The event focuses on integrating academic research with industry needs in AI, Machine learning and Deep Learning. It aims to explore ML and DL trends across various sectors, emphasising how academic insights can solve real-world industry challenges. It also aims to build bridges between researchers and practitioners, fostering innovation and practical AI and DL developments. The major Course Contents are:

- Introduction to Artificial Intelligence.
- Fundamentals of Machine Learning.
- Deep Learning Essentials.
- Neural Network Architectures.
- Advanced Deep Learning Topics.
- Applications of AI and Deep Learning.
- Ethical AI and Explainability.
- Future Directions in AI.

For further details, contact Dr. Sabyasachi Patra, Assistant Professor, Department of CSE, IIIT Bhubaneswar, Odisha-751003, E-mail: *sabyasachi@iiit-bh.ac.in,* Mobile No: 09178017051. For updates, log on to: *www.iiit-bh.ac.in › wp-content › uploads › FDP*

AIU News

New Initiatives on Skill-based Programmes

The Association of Indian Universities (AIU), New Delhi started a few skill-based programmes/ courses in collaboration with three organisations, namely All India Management Association (AIMA), International Council for Circular Economy (ICCE), and SkillingYou. EdTech.

A. Skill-based Programmes with AIMA

The following three programmes/courses have been started with the All India Management Association (AIMA), New Delhi.

a. Leadership Development Programme for Vice Chancellors

A three-day Leadership Development Programme for Vice Chancellors is being jointly offered by the Association of Indian Universities (AIU), New Delhi and All India Management Association (AIMA), New Delhi from August 21-23, 2025 at AIU &

AIMA, New Delhi. The serving and newly appointed Vice Chancellors of Universities across India may participate in the event.

The National Education Policy- 2020 (NEP-2020) has ushered in a transformative vision for Indian higher education. It calls for dynamic leadership, strategic institutional transformation and forward-looking academic governance. This residential programme is specially curated for Vice Chancellors of universities, empowering them to enhance their knowledge, skills and abilities in academic leadership and university administration. The event may bring together India's top academic leaders and select international experts to create an immersive and engaging learning experience. The Topics of the event are:

- Visioning and Institutional Strategy under NEP-2020.
- Global Trends in University Leadership and Governance.
- Leadership Competencies for Academic Administrators.
- University Governance: Policies, Ethics and Regulatory Landscape.
- Funding Models and Financial Sustainability of HEIs.
- Digital Transformation and the Future of Learning.
- Building Research and Innovation Ecosystems.
- International Collaborations and Global Rankings.
- Crisis Management and Institutional Resilience.
- Branding and External Stakeholder Engagement for Universities.
- Roundtable with Former Vice Chancellors and Global Experts.

The registration process is through an online mode. The Programme Fee is INR 60000 + 18%GST (inclusive of accommodation and meals) and INR 40000 + 18%GST (includes meals but without accommodation).

b. Capacity Building Programme for Doctoral Educators

This three-day Capacity Building Programme for Doctoral Educators is being jointly offered with All India Management Association (AIMA), New Delhi from August 07-09, 2025 at AIMA New Delhi. The faculty members involved in PhD supervision or research mentoring, academic leaders guiding institutional research strategy, early-career researchers aspiring to build a research supervision portfolio and coordinators of doctoral programmes in Higher Education Institutions may participate in the Programme.

In line with the vision of the National Education Policy-2020 (NEP-2020) to transform the quality of research and doctoral education in India, this residential programme is designed to empower faculty members with the latest tools, knowledge, and practices to become effective PhD supervisors and research mentors. This programme will enable participants to navigate evolving research paradigms, facilitate interdisciplinary collaboration, and lead research initiatives with global impact. The Programme Fee is INR 50000 + 18% GST (inclusive of accommodation and meals), and INR 35000 + 18%GST (includes meals but without accommodation). The event Modules and Topics are:

Day 1: Foundations of Doctoral Supervision

- Role of the Supervisor in the Doctoral Journey.
- Establishing Research Goals and Structuring the PhD Process.
- Ethics, Integrity and Plagiarism in Research.

Day 2: Research Methodology and Paradigm Shifts

- Recent Advances in Quantitative, Qualitative and Mixed Methods.
- Supervising Interdisciplinary and Applied Research.
- Navigating Literature Reviews, Problem Identification and Research Design.

Day 3: Supervisory Practice & Institutional Research Leadership

- Coaching & Mentoring Skills for Supervisors.
- Building Research Ecosystems in HEIs.
- Writing, Publishing and Funding Strategies for Institutional Research.

c. Certificate Course in Emerging Technologies

The three-month Certificate Course in 'Emerging Technologies' is being jointly offered with All India Management Association (AIMA), New Delhi, starting from August 02, 2025. The final year UG and PG students of Science, Technology, Engineering, and Management, early-career professionals keen to understand digital disruptions, university-nominated students aspiring for tech-driven careers, and learners aiming to pursue further education or roles in AI,

FinTech, Cybersecurity and Digital Strategy may participate in the event. The course is meticulously designed to provide graduating and postgraduate students with a foundational and applied understanding of the most critical and disruptive technologies shaping the future. Delivered by a blend of leading academic experts and industry practitioners, the course ensures learners are job-ready, tech-aware, and innovation-oriented. The Modules and Topics of the event are:

Module 1: Introduction to Emerging Technologies

- Digital Transformation Landscape.
- Disruption and Convergence in Industries.
- Role of Innovation in the Digital Age.

Module 2: Artificial Intelligence and Machine Learning

- Basics of AI/ML Algorithms.
- Applications in Business and Society.
- Ethical AI and Governance.

Module 3: Internet of Things (IoT)

- IoT Architecture and Platforms.
- Real-time Data Processing and Edge Computing.
- Smart Cities, Healthcare and Industrial IoT.

Module 4: Blockchain Technology

- Fundamentals of Blockchain and Decentralised Systems.
- Cryptocurrencies and Smart Contracts.
- Use cases in Finance, Healthcare and Supply Chain.

Module 5: Cloud Computing and Virtualisation

- Cloud Service Models (IaaS, PaaS, SaaS).
- Multi-cloud Strategy and DevOps.
- Cybersecurity in Cloud.

Module 6: Cybersecurity and Data Protection

- Fundamentals of Digital Security.
- Cyber Threats, Detection and Response.
- Regulatory Landscape and Compliance.

Module 7: Quantum Computing and Future Tech

- Basics of Quantum Theory.
- Potential Applications and Global Trends.
- Intersection of Quantum with AI, Cryptography.

Module 8: Capstone Industry Session and Career Pathways

- Live Case Discussions by Tech Industry Leaders.
- Skills for the Future.
- Tech Career Roadmaps and Certifications.

Key Details

Programme Fees: INR 10,000 + 18% GST

Group Discount: 10% off for university-nominated cohorts of 10+ students.

Mode: Online Live Sessions (via Zoom).

Schedule: Weekends Only.

Programme Fees: INR 10,000 + 18% GST

For further details including online registration, reach out to **Dr. Amarendra Pani,** Joint Director, Research Division, E-mail: *researchaiu@gmail.com* | Mobile No. 09818248913 at Association of Indian Universities (AIU), New Delhi and **Dr. Ganesh Singh,** Professor and Programme Director, E-mail: gsingh@aima.in | Mobile: +91-9818945611 at All India Management Association (AIMA), New Delhi.

B. Certification Programme on Circular Economy with *ICCE*

The Certification Programme on 'Circular Economy: Principles and Practice' has been started in collaboration with the International Council for Circular Economy (ICCE). The course is Foundational, Advanced and Industry need-based, which aims at developing understanding about the concept of Circular Economy and also equipping them with relevant skills to address the concurrent challenges faced by the earth and humanity due to climate change and other aspects. The Professionals, Entrepreneurs, Students, Researchers, Corporates and Startups, Government & Policy Makers, NGOs & Consultants may participate in the event. The Fee for students is Rs 3,500/- + taxes, and for Industry Professionals is Rs 12,000/- + taxes.

For further details, contact **Ms. Surabhi Singhal**, Communication Manager, International Council for Circular Economy, Avanta Business Centre, KG Marg, New Delhi, Mobile No: +91- 9810389313 and E-mail: *surabhi@ic-ce.com*

C. Programme on Education 2.0 with SkillingYou

This joint programme is in collaboration with SkillingYou, a startup which is engaged in promoting the concept of Education 2.0, an advanced learning initiative designed to bridge the gap between conventional college education and the skills needed for employability in today's dynamic and volatile job market.

For detailed information, reach out to **Dr. Amarendra Pani**, Joint Director, Research Division, Association of Indian Universities (AIU), New Delhi, E-mail: *researchaiu@gmail.com* and Mobile No: 09818248913. ❑

THESES OF THE MONTH

SCIENCE & TECHNOLOGY
A List of doctoral theses accepted by Indian Universities
(Notifications received in AIU during the month of May-June, 2025)

AGRICULTURAL & VETERINARY SCIENCES

Biotechnology

1. Amresh Kumar. **Understanding Nitrate Transporter2 (NRT2) and Nitrate Assimilation Related2 (NAR2) protein interaction for high afinity nitrate uptake in wheat**. (Dr. Aditi Arya and Dr. Subodh Kumar Sinha), Department of Biotechnology, Deenbandhu Chhotu Ram University of Science and Technology, Murthal.

Forestry

1. Chowdhury, Bipul Das. **Studies on endomicrobial diversity and socioeconomic aspects of Agarwood Tree (*Aquilaria malaccensis* Lam) from Tripura, Northeast India**. (Prof. Bimal Debnath), Department of Forestry and Biodiversity, Tripura University, Suryamaninagar.

BIOLOGICAL SCIENCES

Bio Sciences

1. Mahapatra, Sahashransu Satyajeet. **Improving the cost efficiency of analysis and treatment of domestic wastewater to facilitate effectiveness reuse**. (Dr. A S Vishwanathan), Department of Bio-Sciences, Sri Sathya Sai Institute of Higher Learning, Anantapur.

Biochemistry

1. Betsy, Reshma G. **A polymer-based system for nucleic acid delivery to the brain**. (Dr. Munia Ganguli), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
2. Bhambore, Nandini Rajbhoj. **Treatment of leachate generated from municipal solid waste dumpsite by hybrid reactor system**. (Dr. M Suresh Kumar), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
3. Joshi, Dheeraj Chandra. **Genome wide impact of inherited long non-coding RNAs**. (Dr. Beena Pillai), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
4. Roy, Debopriya. **Structural rationale for the GTPase specificity of DOCK guanine exchange factors**. (Dr. Kiran A Kulkarni), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

Life Science

1. Ambareen, Naqiya. **Understanding the role of autophagy in the pathophysiology of Alzheimer's disease**. (Dr. Subhas C Biswas), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
2. Choudhury, Upasana. **Functional characterization of SLERF8 in tomato (*Solanum lycopersicum* L)**. (Dr. Aniruddha P Sane), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
3. Dutta, Hashnu. **Elucidating and targeting the molecular foundations of oncogenic mutant Isocitrate Dehydrogenase-I**. (Dr. Nishant Jain), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
4. Kaliyathan, Raveena Natakkakath. **Value addition of unripe 'Nendran' Banana (*Musa* (AAB) cv. Nendran) and exploration of its phytoconstituents**. (Dr. Reshma M V), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
5. Kapoor, Yogita. **Investigating the role of DivIVA-domain containing proteins in mycobacterial cell division**. (Dr. Vinay Kumar Nandicoori), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
6. Nair, Anaga Madanmohan. **Trapping glycation intermediates for the modulation of diabetes and its complications: A natural product derived therapeutic approach**. (Dr. Jayamurthy P), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
7. Parimita, Shubhashree. **VGLL1 regulates EGFR and maintains breast tumor initiating cells via TAZ**. (Dr. Amitava Das and Dr. Sanjoy Samanta), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
8. Sen, Himanshu. **Study on the functional conservation and divergence among HapR and its homologues: Lessons from *Vibrio cholerae* as a surrogate host**. (Dr. Saumya Ray Chaudhuri), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

9. Singh, Puja. **CRISPR/Cas9 mediated genome editing to modify arsenic uptake in rice (Oryza sativa L)**. (Dr. Debasis Chakrabarty), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
10. Srivastava, Nandita. **Synthesis, characterization, and application development of polysaccharide-based novel materials**. (Dr. Anirban Roy Choudhury), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
11. Yog Raj. **Sculpturing *Hypericum perforatum* L rhizosphere for enhanced biomass and secondary metabolite production under the western Himalaya**. (Dr. Rakesh Kumar), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

Zoology

1. Das, Papri. **Reproduction, physiology and ecology of *Ompok Pabda* (Hamilton,1822) of Tripura India**. (Prof. Sukanta Banik), Department of Zoology, Tripura University, Suryamaninagar.
2. Kirti. **Teratological reproductive and neurotoxic studies of Dibutyl Phthalate (DBP) and Polystyrene nanoplastic particles (PS-NPs) in Swiss albino mice**. (Dr. Anju Sharma and Prof. Pradeep Bhatnagar), Department of Zoology, IIS University, Jaipur.
3. Sarwar, Sumiya. **Comparative study of aquatic insects as bioindicators of pollution in two economically important rivers of Kashmir**. (Dr. Purnima Shrivastava and Dr. Mohammad Farooq Mir), Department of Zoology, Bhagwant University, Ajmer.

EARTH SYSTEM SCIENCES

Biotechnology

1. Priya. **Studies on production and purification of Tannase from bacterial isolates inhabiting termite gut**. (Dr. Krishan Kumar Selwal), Department of Biotechnology, Deenbandhu Chhotu Ram University of Science and Technology, Murthal.

Environmental Science

1. Ganiee, Shahid Ahmad. **Biochemical analysis and allelopathy of invasive and non invasive species of Amaranthus**. (Prof. Bashir Ahmad Ganai and Prof.Manzoor Ahmad Shah), Department of Environmental Science, University of Kashmir, Srinagar.
2. Yaseen,Tabasum.**Influenceofthermalstratification on hydrochemical characteristics and Plankton communities in Manasbal Lake of Kashmir**. (Dr. Sami Ullah Bhat and Prof. Farooz Ahmad Bhat), Department of Environmental Science, University of Kashmir, Srinagar.

ENGINEERING SCIENCES

Chemical Engineering

1. Das, Dipankar. **Synthesis of cellulose-based hydrogel for agricultural application**. (Dr. Sachin Bhaladhare), Department of Chemical and Polymer Engineering, Tripura University, Suryamaninagar.

Civil Engineering

1. Chinna, Suresh Babu C. **Studies on flexure, shear of RCC members with glass fibre rope shear reinforcement**. (Dr. C Ramachandrudu and Dr. C Sashidhar), Department of Civil Engineering, Jawaharlal Nehru Technological University Anantapur,Ananthapuramu.
2. Gill, Parmender. **Development of environment friendly durable rubberized geopolymer concrete for structural applications**. (Dr. Parveen), Department of Civil Engineering, Deenbandhu Chhotu Ram University of Science and Technology, Murthal.
3. Hosin, Nasim. **Design specification of steel single unequal angle, channel, and I-section Purlins subjected to biaxial bending moment and torsion by various standard codes using Abaqus software**. (Dr. Narayan Chandra Moharana), Department of Civil Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
4. Murthy, G V L N. **An experimental study on simulation design and development of models for intelligent transportation system under heterogeneous traffic conditions**. (Dr. Ramprasad Naik Desavathu and Dr. M Anjankumar), Department of Civil Engineering, GIET University, Gunupur.
5. Reddy, Poli Sainath. **Quantifying flood exposure in Nandigama, Andhra Pradesh using hydrologic and hydraulic models**. (Dr. R Bhavani), Department of Civil Engineering, Jawaharlal Nehru Technological University, Hyderabad.

Computer Science & Engineering

1. Behera, Sudersan. **Evolutionary artificial neural networks for financial time series forecasting**. (Dr. Sarat Chandra Nayak), Department of Computer Science & Engineering, GIET University, Gunupur.
2. Pushpa. **Machine learning based load forecasting in smart grid**. (Dr. Sanjeev Indora), Department of Computer Science & Engineering, Deenbandhu Chhotu Ram University of Science and Technology, Murthal.
3. Reddy, D Jayanarayana. **Leveraging deep learning approaches for the prediction of agricultural crop yield**. (Dr. M Rudra Kumar), Department of Computer Science & Engineering, Jawaharlal Nehru Technological University Anantapur,Ananthapuramu.

4. Sen, Arghyadeep. **Healthcare question answering system in Bengali**. (Dr. Satya Ranjan Dash), Department of Computer Science & Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.

5. Shah, Rudresh. **Dynamic resource provisioning for load balancing in cloud computing environment**. (Prof. Suresh Jain), Department of Computer Science & Engineering, Medi-Caps University, Rau, Indore.

6. Subbarayudu, Yerragudipadu. **The cluster visualized topic modeling paradigms for recognition of health related topics through machine learning**. (Dr. Suresh Babu), Department of Computer Science & Engineering, Jawaharlal Nehru Technological University Anantapur,Ananthapuramu.

Electrical & Electronics Engineering

1. Lokendra Kumar. **Performance analysis of electric vehicles charging infrastructure in smart grid using renewable integrated power supply**. (Dr. Ravi), Department of Electrical Engineering, Deenbandhu Chhotu Ram University of Science and Technology, Murthal.

2. Manepalli, Venkata Sudarsan. **Implementation of intelligent controller based soft switching interleaved high gain non isolated DC–DC converter**. (Dr. S Satyanarayana and Dr. Ch Sai Babu), Department of Electrical & Electronics Engineering, Jawaharlal Nehru Technological University, Kakinada.

3. Mishra, Sthitprajna. **Evaluation of IoT-enabled lithium-ion battery management systems for electric vehicle applications**. (Dr. Chinmoy Kumar Panigrahi and Dr. Subhra Debdas), Department of Electrical & Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.

4. Teja, Srungaram Ravi. **Development of low-cost high efficiency multi-level converter topologies for high power applications**. (Dr. Y Srinivasa Kishore Babu), Department of Electrical & Electronics Engineering, Jawaharlal Nehru Technological University, Kakinada.

Electronics & Communication Engineering

1. Chauhan, Rishika. **Performance augmentation of prediction and optimization algorithms in artificial network**. (Dr. Shefali Sharma and Dr. Rahul Pachauri), Department of Electronics & Communication Engineering, Jaypee University of Engineering and Technology, Guna.

2. Kollipara, Radha. **Energy efficient and secured VLSI architecture for DSRC applications**. (Dr. A V N Tilak), Department of Electronics & Communication Engineering, Jawaharlal Nehru Technological University, Kakinada.

3. Kondaiah, Mogiligundla. **Effective spectrum utilization in massive MIMO systems through optimal power allocation**. (Dr. M Padmaja), Department of Electronics & Communication Engineering, Jawaharlal Nehru Technological University, Kakinada.

4. Malisetti, Nageswararao. **Energy aware routing in wireless sensor networks through meta-heuristic optimization algorithms**. (Dr. P Vinay Kumar), Department of Electronics & Communication Engineering, Jawaharlal Nehru Technological University, Kakinada.

5. Malleswari, Akurati. **Development and performance evaluation of novel PAPR reduction techniques for MIMO-OFDM communications**. (Dr. P. Satish Kumar and Dr. K Satya Prasad), Department of Electronics & Communication Engineering, Jawaharlal Nehru Technological University, Kakinada.

6. Neerugatti, Varipally Vishwanath. **Optical character recognition for multi script from document image using artificial neural network algorithm with facial appearances**. (Dr. K Manjunathachari and Dr. K Satya Prasad), Department of Electronics & Communication Engineering, Jawaharlal Nehru Technological University, Kakinada.

7. Neeti. **A novel hybrid FPGA architecture for optimal usage**. (Dr. Sunita Dahiya), Department of Electronics & Communication Engineering, Deenbandhu Chhotu Ram University of Science and Technology, Murthal.

8. Ravi Kishore, M. **Design and analysis of substrate integrated waveguide based cavity backed antennas for microwave communications**. (Dr. K Chandrabhushana Rao), Department of Electronics & Communication Engineering, Jawaharlal Nehru Technological University, Kakinada.

9. Sharma, Sarvesh Kumar. **Investigations on metasheuristic approach for data routing in wireless sensor networks**. (Dr. Mridul Chawla), Department of Electronics & Communication Engineering, Deenbandhu Chhotu Ram University of Science and Technology, Murthal.

10. Yadav, Lalita. **Design, optimization and implementation of low power and efficient ADPLL**. (Dr. Manoj Duhan), Department of Electronics & Communication Engineering, Deenbandhu Chhotu Ram University of Science and Technology, Murthal.

Mechanical Engineering

1. Rao, D Kameswara. **Experimental and numerical investigations of a solar PV panel using PCM**. (Dr. K Sudhakar Reddy and Dr. V V Subba Rao), Department of Mechanical Engineering, Jawaharlal Nehru Technological University, Kakinada.

Textile & Apparel Design

1. Barman, Nabokumar Chargaram. **Influence of yarn core-sheath structure on textile reinforced concrete properties**. (Prof. Someshwar S Bhattacharya and Prof. Ramasamy Alagirusamy), Faculty of Technology and Engineering, M S University of Baroda, Vadodara.

MATHEMATICAL SCIENCES

Mathematics

1. Goyal, Shifa. **A study of certain models on population dynamics**. (Dr. Nayna Kadam), Department of Mathematics, Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore.
2. Halder, Amit. **Studies on *I* convergence of complex uncertain sequences and its generalization**. (P Shyamal Debnath), Department of Mathematics, Tripura University, Suryamaninagar.
3. Kavita. **The existence of fixed point results for mappings in metric spaces**. (Dr. Sanjay Kumar), Department of Mathematics, Deenbandhu Chhotu Ram University of Science and Technology, Murthal.

Statistics

1. Datta, Jayanta. **Error in age reporting in census data: Measure and remedy**. (Dr. Prasenjit Sinha), Department of Statistics, Tripura University, Suryamaninagar.
2. Nag, Parantap. **Allocation of experimental units having known covariates with regards to optimality**. (Dr. Samrat Hore), Department of Statistics, Tripura University, Suryamaninagar.

MEDICAL SCIENCES

Anatomy

1. Srivastava, Poonam. **A morphometric study & bone mineral density of proximal femur and lumbar spine in women of different age group & its correlation with serum Vitamin D & serum calcium level in relation to anthropometric & reproductive variable**. (Dr. Vandana Tewari), Faculty of Medical Sciences, Rama University, Kanpur.

Biotechnology

1. Sengupta, Soumika. **Development, characterization and pre-clinical evaluation of the therapeutic efficacy of mutant asparaginase to improve the treatment of Acute Lymphoblastic Leukemia**. (Dr. Avinash Sonawane and Dr. Vikram Gota), Department of Biotechnology, Kalinga Institute of Industrial Technology, Bhubaneswar.

Pharmaceutical Science

1. Jihad, EV Mohamed. **Phytochemical and pharmacological evaluation of antidiabetic and its relevant complications treatment of *Lindera communis* Hemsl extracts in experimentally induced diabetic rodents**. (Dr. Rajasekaran S), Department of Pharmacy, Bhagwant University, Ajmer.

PHYSICAL SCIENCES

Chemistry

1. Batool, Aneesa. **Synthesis of nano-agro chemicals for crop improvement**. (Dr. Gajendra Kumar, Dr. Momina Nazir and Dr. Sajad Majeed Zargar), Department of Chemistry, Bhagwant University, Ajmer.
2. Bera, Krishnendu. **Development of non-precious transition metal based electrocatalysts for water splitting application**. (Dr. Subrata Kundu), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
3. Boruah, Smriti Rekha. **Some contribution to the chemistry of zinc complexes containing nitrogen, oxygen donor ligands**. (Prof. R N Dutta), Department of Chemistry, Tripura University, Suryamaninagar.
4. Dehury, Asish Kumar. **Design of intrinsic white light emitting nanostructured phosphors and their W-LED prototypes**. (Dr. Yatendra Singh Chaudhary), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
5. Gautam, Divya. **Adsorption potential of modified cellulose from invasive weeds on dyes removal**. (Dr. Yogesh Kumar Walia), Department of Chemistry, Career Point University, Hamirpur.
6. Jain, Karishma. **Synthesis of carbon nanofibers from biopolymer blends and its applications**. (Dr. Sanjay R Dhakate), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

7. Manisha. **Synthesis of *N*-heterocyclic derivatives via transition metal catalyzed C-H functionalization**. (Dr. Upendra Sharmaa), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

8. Mishra, Bijayashree. **Synthesis and biological evaluation of some newer anthraquinone derivatives**. (Prof. Utpal Chandra De), Department of Chemistry, Tripura University, Suryamaninagar.

9. Newar, Uma Devi. **Studies on novel carbon-carbon and carbon-heteroatom bond forming reactions of α-*Azidoketones***. (Dr. Ram Awtar Maurya), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

10. Puri, Monika. **Analytical method development and validation for the multi- component analysis of some important of anti hypertensive agents**. (Dr. Yogesh Kumar Walia), Department of Chemistry, Career Point University, Hamirpur.

11. Reddy, Chilakala Nagarjuna. **Design and synthesis of molecular libraries in selected heterocyclic scaffolds to discover potential anticancer leads**. (Dr. Sandip B Bharate), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

12. Sonu Rani. **Development and studies of isotropic coal tar pitch-based carbon fibers**. (Dr. Saroj Kumari), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

13. Suri Babu, Undamatla. **Novel-cyclizations/ annulations through carbo- and hetero-palladation of enynes for multicyclic scaffolds**. (Dr. M. Sridhar Reddy), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

Physics

1. Ajithabh, K S. **Lithospheric imaging of Northwest Himalaya and Ladakh – Karakoram Region from magnetotelluric studies: Its implication on tectonics**. (Dr. B P K Patro), Faculty of Physical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

2. Basak, Sanghita. **Studies on structural, electrical and optical properties of some group II-VI semiconductor nanocrystals along with analyzing the effect of swift heavy ion irradiation**. (Dr. Ratan Das), Department of Physics, Tripura University, Suryamaninagar.

3. Garg, Tarun. **Investigation on the multiferroic properties of transition metal oxides**. (Prof. A. A Koser and Dr. Anand Yadav), Department of Physics, Medi-Caps University, Rau, Indore.

4. Kuldeep. **Magneto-rheological, zeta potential and spin dynamics study of mixed ferrites based nanoparticles and fluids**. (Dr. G.A. Basheed and Dr. R P Pant), Faculty of Physical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

5. Mishra, Prasan Kumar. **Design and testing of compact UWB and multiband antennas for wireless communication system**. (Dr. Tapan Kumar Patnaik Dr. Bhavani Prasad Panda), Department of Physics, GIET University, Gunupur.

6. Mistry, Heli Jatin. **Development of toxic gas sensors using 2D materials: A first principles study**. (Dr. Keyur N Vyas), Department of Physics, M S University of Baroda, Vadodara.

7. Nehra, Pooja. **Investigations of tungsten trioxide nanoparticles as photocatalyst for treatment of organic pollutants in wastewater**. (Dr. Pawan S Rana and Dr. Satyendra Singh), Department of Physics, Deenbandhu Chhotu Ram University of Science and Technology, Murthal.

8. Parmar, Lakhan Kumar. **Tuning the physical properties of Fe-doped $YCrO_3$**. (Dr. Ashok Kumar and Dr. Anand Yadav), Department of Physics, Medi-Caps University, Rau, Indore.

9. Prajapat, Kamal. **Design and investigation of transition metal-doped TiO_2 composites for high performance dye-sensitized solar cells**. (Dr. Mahesh Dhonde), Department of Physics, Medi-Caps University, Rau, Indore.

10. Pratap, Pratiksha. **Superconducting properties of NbTiN thin films in 2D and quasi 2D regime**. (Dr. Venugopal Achanta and Dr. R P Aloysius), Faculty of Physical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

11. Priyambada, Aiswarya. **Structural, electronic, and magnetic properties of perovskite oxides and their heterostructures: Insights from density functional theory**. (Dr. Priyadarshini Parida), Department of Physics, Kalinga Institute of Industrial Technology, Bhubaneswar.

12. Sehrawat, Supriya. **Preparation and characterization of sensing materials for environmental monitoring application**. (Dr. Surender Duhan and Dr. S P Nehra), Department of Physics, Deenbandhu Chhotu Ram University of Science and Technology, Murthal.

13. Sharma, Rajendrakumar Laxminarayan. **Development of technology & methodology for higher energy density supercapacitor sustainable variants for diversified demanding applications**. (Dr. Sujay Kumar Singh Parashar), Department of Physics, Kalinga Institute of Industrial Technology, Bhubaneswar. ❑

বিশ্বভারতী
विश्वभारती
VISVA-BHARATI

A Central University and an Institution of National Importance

Advertisement No. 04/2025 dated 08.07.2025

1) **Director of Physical Education, Sports, National Service and Student Welfare:** (UR)
2) **Parichalaka (Director), Granthana Vibhaga (Publishing Department), Kolkata:** (UR)
3) **Deputy Registrar:** (UR – 01 & SC – 01)
4) **Assistant Registrar:** (OBC)
5) **Junior Engineer (Civil):** (SC)

Last date of submitting online application:08.08.2025 at 11:59 P.M.

For details login **towww.visva-bharati.ac.in**

Apply through the portal: https://visvabharatint.samarth.edu.in

Priydarshini Seva Sanstha's,
Late Dr. Shankarrao Satav College of Education (B.Ed)

WANTED

(Non Grant)

Applications are invited from eligible candidates for the following posts completed in all respect should reach to the office **within 15 days** from the date of publication of this advertisement:

Sr. No.	Position	Nature	No. of Post	Reservation
1.	Principal	Regular	01	Unreserved

Note:- For Detailed information about post, Qualifications & Other terms and conditions, please Visit the University **website: www.srtmun.ac.in.**

Address for Correspondance:
President/Secretary
Priydarshini Seva Sanstha's,
Late Dr. Shankarrao Satav College of Education (B.Ed), Kalamnuri
Tq. Kalamnuri, Dist. Hingoli – 431702

President
Priydarshini Seva Sanstha
Kalamnuri

WANTED

Applications are invited from the eligible candidates for the post of Principal to be filled in **Maharashtra College of Pharmacy, Nilanga** (Permanent Non-Grant) running under Maharashtra Shikshan Samiti, Nilanga. Eligible Candidates should submit their application to the following address along-with all necessary documents **within Fifteen Days** from the date of publication of the Advertisement by Registered Post only:

Sr. No.	Name of Post (Designation)	No. of Posts	FT/PT	Reservation
1	**Principal**	1	Full Time	Unreserved

The detailed information about Qualifications, Experience, reservation, other terms and conditions available on **www: srtmun.ac.in** and college **website www: mcpnilanga.ac.in.**

Address for correspondence:
To,
I/c Principal,
Maharashtra College of Pharmacy,
Nilanga Main Road, Nilanga,
Tal. Nilanga, Dist. Latur-413521
Maharashtra State

-Sd-
President/Secretary

Priydarshini Seva Sanstha's,
Late Dr. Shankarrao Satav College of Education (B.Ed)

WANTED

(Non Grant)

Applications are invited from eligible candidates for the following posts completed in all respect should reach to the office **within 15 days** from the date of publication of this advertisement:

Sr. No.	Designation	Total Posts	Reservation
1.	Assistant Professor	06-Regular	OPEN-2, SC-01, ST-01, VJA-01, OBC-01, SEBC- 01, EWS-01
2.	Assistant Professor	02-Part Time	

Note:- For Detailed information about post, Qualifications & Other terms and conditions, please visit the University **website: www.srtmun.ac.in.**

Address for Correspondance:
President/Secretary
Priydarshini Seva Sanstha's,
Late Dr. Shankarrao Satav College of Education (B.Ed),
Kalamnuri, Tq. Kalamnuri, Dist. Hingoli – 431702

President
Priydarshini Seva Sanstha
Kalamnuri

SAURASHTRA UNIVERSITY
RAJKOT

Employment Notice No. Esta/A/2508452/2025 **Dt:-05 /07/2025**

Special Recruitment Drive for Person with Disability (PwBD) candidate

Saurashtra University, Rajkot invites applications for the following post in prescribed performa from the qualified Citizens of India:

No	Name of Post	No. of Post	Name of the Department	Category	Pay Scale As per the 7th Pay
1	Professor	1	Chemistry	PwBD (B,LV)	Academic Level-14 Rationalize Entry Pay 1,44,200
2	Associate Professor	1	Sociology	PwBD (B, LV)	Academic Level-13A Rationalize Entry Pay 1,31,400

Application form along with details of essential qualifications, experiences, pay scale, general terms and conditions etc. can be downloaded from the University **website**: **www.saurashtrauniversity.edu**
Last Date for online application: 27/07/2025 upto 24:00 hours.

Uploaded application with all relevant testimonials in two (02) copy should reach by Personally/ RPAD/Speed post/Courier to "The Registrar, Establishment Section-A, Saurashtra University, Rajkot - 360005" on or before Date 04/08/2025 up to 18:00 hours.

REGISTRAR

R.L. TAWDE FOUNDATION'S
SAROJINI COLLEGE OF PHARMACY
Affiliated to Shivaji University,Kolhapur, Maharashtra
RS NO. 576, NEAR RAJENDRA NAGAR WATER TANK, KOLHAPUR - 416004

WANTED (Non-Grantable)

APPLICATIONS ARE INVITED FOR B.PHARMACY FROM ELIGIBLE CANDIDATES FOR THE FOLLOWING POSTS

Sr No	Name Of Post	No.Posts	Reservation
A.	**Principal**	01	01-Open to All
B.	**Professor:**		
1.	Pharmaceutics	01	01-Open to All
2.	Pharmaceutical Chemistry	01	01-Open to All
3.	Pharmacology	01	01-Open to All
C.	**Professor/Associate Professor:**		
1.	Pharmacognosy	01	01-Open to All
D.	**Associate Professor:**		
1.	Pharmaceutics	02	01-SC & 01-Open to All
2.	Pharmaceutical Chemistry	01	01-Open to All
3.	Pharmaceutical Analysis	01	01-Open to All
4.	Pharmacology	01	01-Open to All
5.	Pharmacy Practice	01	01-Open to All
D.	**Assistant Professor:**		
1.	Pharmaceutics	05	01-SC, 01-VJA, 01-OBC, 01-SEBC & 01-Open to All
2.	Pharmaceutical Chemistry	05	01-SC, 01-VJA, 01-OBC, 01-SEBC & 01-Open to All
3.	Pharmaceutical Analysis	01	01-Open to All
4.	Pharmacology	03	01-SC, 01-VGA, & 01-Open to All
5.	Pharmacognosy	02	01-SC & 01-Open to All

Note:1.For detailed information about posts,qualifications and other terms and conditions please visit University website:www.unuishivaji.ac.in & College website www.sarojinicollegeofpharmacy.com.
2. Application with complete resume should reach to college within 15 days from the date of advertisement.
Place: Kolhapur, Maharashtra
Date: 08.07.2025

Shahu Shikshan Sanstha (Pandharpur)
ADHYAPAK MAHAVIDYALAYA (B.Ed.)
Survey No. 37, Mohone Road, Shahad (W), 421 103.

APPLICATIONS ARE INVITED FOR THE FOLLOWING POSTS FROM THE ACADEMIC YEAR 2025-26:

Sr. No.	Cadre	Subject	Total No. of Posts	Post Reserved for
1	Principal	--	01	01-OPEN
2	Assistant Professor	Education (History, Hindi, Marathi, English, Science, Mathematics, Geography, Economics Method)	06	01-SC, 01-ST, 01-DT(A), 01 OBC, 01 SEBC/EWS, 01 – OPEN
3	Librarian	--	01	01- DT(A)

The posts reserved for the Backward Class candidates will be filled in by backward category candidates (Domicile of State of Maharashtra) belonging to that particular category only.

Reservation for women will be as **per University Circular No. BCC/16/74/1998 dated 10th March, 1998. 4% reservation shall be for the persons with disability as per University Circular No. Special Cell/ICC/2019-20/05 dated 05th July, 2019.**

Candidates having knowledge of Marathi will be preferred.

"Qualifications, Pay Scales and other requirements are as prescribed by the UGC Notification dated 18th July, 2018, Government of Maharashtra Resolution No.Misc-2018/C.R.56/18/UNI-1, dated 8th March, 2019 and University circular No. TAAS/(CT)/ICD/2018-19/1241, dated 26th March, 2019 and revised from time to time". The Government Resolution & Circular are available on the website: mu.ac.in

Applicants who are already employed must send their application through proper channel. Applicants are required to account for breaks, if any, in their academic career.

Application with full details should reach the **SECRETARY, Shahu Shikshan Santha (P), Survey No 37, Mohone Road, Shahad (W)- 421 103 within 15 days** from the date of publication of this advertisement. This is University approved advertisement.

Sd/-

SECRETARY

Shahu Shikshan Sanstha,(Pandharpur)
DEVAJIBHAI HARIYA LAW COLLEGE
Survey No. 37 Mohone Road, Shahad (w)

APPLICATION ARE INVITED FOR THE FOLLOWING POSTS FROM THE ACADEMIC YEAR 2025 -26:

UN – AIDED

Sr. No.	Cadre	Subject	Total no. of Posts	Post Reserve for			
				Open	DT(A),	OBC	SEBC/EWS
1.	Principal	----	01	01	--	--	--
2.	Assistant Professor	Law	05	02	01	01	01
3.	Librarian	-----	01	01			

The Posts for the reserved Category candidates will be filled in by the same category Candidates (Domicile State of Maharashtra) belonging to that particular category only.

Reservation For Women will be as per **University Circular No. BCC/16/74/1998 dated 10TH March,1998 4% reservation shall be for the persons with disability as per University Circular No. Special Cell/ ICC/2019-20/05 dated 05th July, 2019.**

Candidates having Knowledge of Marathi will be preferred.

"**Qualifications, Pay Scales and other requirements are as prescribed by the. UGC notification dated 18th July, 2018, Government of Maharashtra Resolution No. Misc -2018/C.R.56/18/UNI-1, dated 8th March, 2019 and University Circular No. TAAS/(CT)/ICD/2018-19/1241, dated 26th March, 2019 and revised from time to time". The government resolution and circular are available on the websites: mu.ac.in.**

Applicants who are already employed must send their application through proper channel. Applicants are required to account for breaks, if any, in their academic career.

Applications with full details should reach the **SECRETARY, Shahu Shikshan Sanstha (P) Survey No. 37, Mohone Road, Shahad (W)-421103 within 15 days** from the date of publication of this advertisement. **This is University approved advertisement**.

Sd/-

SECRETARY

Shahu Shikshan Sanstha, (Pandharpur)

MATOSHREE VELBAI DEVJI HARIYA COLLEGE OF ARTS, COMMERCE AND SCIENCE

Survey No. 37 Mohone Road, Shahad (W) 421 103

APPLICATIONS ARE INVITED FOR THE FOLLOWING POSTS FROM THE ACADEMIC YEAR 2025-26:

UNAIDED

Sr. No.	Cadre	Subject	Total no. of Posts	Post Reserved for
1.	Principal	---	01	01 – OPEN
2.	Assistant Professor	History	02	01 – SC, 01 – OPEN
3.	Assistant Professor	Economics	02	01 – SC, 01 – OPEN
4.	Assistant Professor	Political Science	01	01 – SC
5.	Assistant Professor	Business Economics	01	01 – OPEN
6.	Assistant Professor	Commerce	02	01 – SC, 01 – OPEN
7.	Assistant Professor	English	01	01 – OPEN
8.	Assistant Professor	Hindi	01	01 – OPEN
9.	Librarian	---	01	01 – SC/ST

For Assistant Professor (Horizontal Reservation) - Sportsmen-01

The Posts for the Reserved category candidates will be filled in by the same category candidates (Domicile of State of Maharashtra) belonging to that particular category only.

Reservation for women will be as per **University Circular No.BCC/16/74/1998 dated 10th March, 1998. 4 % reservation shall be for the persons with disability as per University Circular No. Special Cell/ ICC/2019-20/05 dated 05th July, 2019**

Candidates having Knowledge of Marathi will be preferred.

"**Qualifications, Pay Scales and other requirements are as prescribed by the UGC Notification dated 18th July 2018, Government of Maharashtra Resolution No. Misc-2018/C.R.56/18/UNI-1, dated 8th March, 2019 and University Circular No. TAAS/(CT)ICD/2018-19/1241, dated 26th March, 2019 and revised from time to time". The Government Resolution & Circular are available on the website: mu.ac.in.**

Applicants who are already employed must send their application through proper channel. Applicants are required to account for breaks, if any, in their academic career.

Applications with full details should reach the **SECRETARY, Shahu Shikshan Sanstha (P), Survey No. 37, Mohone Road, Shahad (W)-421 103 within 15 days** from the date of publication of this advertisement **This is University approved advertisement**.

Sd /-
SECRETARY

Suvarnashanti Bahuuddeshiya Mandal, Vairag
Sou. Suvarnlata Gandhi Mahavidyalaya, Vairag Tal. Barshi, Dist. Solapur

(Affiliated to Punyashlok Ahilyadevi Holkar Solapur University, Solapur)

AIDED (NON-MINORITY)

Applications are invited for Post of PRINCIPAL from the Academic Year 2025-26:

Sr. No.	Subject Designation	Total Vacant Posts
1	PRINCIPAL	01

CONDITIONS:

1) The above post is open to all; however, candidates from any category can apply for the posts.
2) Educational Qualifications, Service Conditions & Pay Scale will be applicable as per existing rules prescribed by UGC Notification dtd. 18 July 2018, Govt. of Maharashtra Resolution No. Misc 2018/C.R. 56/18 UNI-1 dtd. 8th March, 2019 and University Circular No. PAHSUS/Esst/7th pay/2019/2285 dtd 25th March 2019.
3) Candidates should submit their Academic Research Score (Academic Performance Indicator) report with related documents.
4) A relaxation of 5% shall be allowed at the Bachelors as well as at the Masters Level for the candidates belonging to SC/ST/OBC (Non-Creamy Level)/Differently-abled for the purpose of eligibility and assessing good academic record for direct recruitment.
5) Reserved Category candidates, who are domiciled out of Maharashtra State, will be treated as open category candidates.
6) Reserved candidates should also to send a copy of their application to the Deputy Registrar, Special Cell Punyashlok Ahilyadevi Holkar Solapur University, Solapur.
7) Applications received after the last date will not be considered. The Sanstha will not be responsible for postal delay, if any.
8) Reservation for Women and Disabled persons will be as per the Govt. norms.
9) Reserved Category candidates shall produce the Caste Validity Certificate as per the directives issued by the State Government vide Circular No.BCC-201/Pra.Kra.1064/2011/16B dated 12-12-2011.
10) Reserved category candidates (except SC/ST) shall produce Non-Creamy Layer Certificate at the interview.
11) Applicants who are in service must send their application through proper channel.
12) Applicants are required to account for breaks, if any, in their academic career.
13) Incomplete application will not be entertained.
14) T.A. D.A. will not be paid for attending the interview.
15) Applications with full details should reach to **The Secretary**, **Suvarnashanti Bahuuddeshiya Mandal's Sou. Suvarnlata Gandhi Mahavidyalaya, Vairag 413402 Tal. Barshi Dist Solapur within 30 days** from the date of publication of this advertisement.
16) This is University approved advertisement

Place: Vairag
Date: 14/072025

SECRETARY
Suvarnashanti Bahuuddeshiya Mandal's Vairag

Sonopant Dandekar Shikshan Mandali's

SONOPANT DANDEKAR ARTS, V. S. APTE COMMERCE AND M. H. MEHTA SCIENCE COLLEGE, PALGHAR

Late Shivaraj Dada Tiwari Marg, Palghar, Dist – Palghar, Pin - 401 404.

Phone – (02525) 252 163, 252317 | E-Mail :– sdsmcollege@yahoo.com

APPLICATIONS ARE INVITED FOR THE FOLLOWING **CLOCK HOUR BASIS** POSTS FOR THE ACADEMIC YEAR 2025 - 26.

AIDED

Sr. No.	Cadre	Subject	Total No. of CHB Posts	Category
1	Assistant Professor	Botany	04	04 – Open
2	Assistant Professor	Chemistry	08	08 – Open
3	Assistant Professor	Commerce	02	02 – Open
4	Assistant Professor	Economics	02	02 – Open
5	Assistant Professor	Physics	03	03 – Open
6	Assistant Professor	Zoology	08	08 – Open
7	Assistant Professor	Mathematics	04	04 – Open
8	Assistant Professor	English	01	01 – Open
9	Assistant Professor	Geography/ EVS	01	01 – Open
10	Assistant Professor	Rural Development	02	02 – Open

The above posts are open to all, however, candidates from any category can apply for the post.

Reservation for women will be as per **University Circular No. BCC/16/74/1998 dated 10th March, 1998. 4% reservation shall be for the persons with disability as per University Circular No. Special Cell/ ICC/2019-20/05 dated 5th July, 2019.**

Candidates having knowledge of Marathi will be preferred.

"Qualifications, Pay Scales and other requirements are as prescribed by the UGC Notification dated 18th July, 2018, Government of Maharashtra Resolution No. Misc- 2018/ C.R.56/18/ UNI-1, dated 8th March, 2019 and University Circular No. TAAS/(CT)/ICD/2018-19/1241, dated 26th March, 2019, Higher and Technical Department Government Resolution No. अर्थसं–२०२२/प्र.क्र. १०५/(१)/मशि–३, दिनांक २७ मार्च, २०२३, University Circular No. सीटीएयु/ ०१/२०२४–२०२५, दिनांक २४/०४/२०२४, and Higher & Technical Department Government Resolution No. संकीर्ण–२०२१/प्र.क्र. १८१/२१/विशि–१, दिनांक १७ ऑक्टोबर, २०२२, University Circular No. सीटीएयु/०३/२०२४–२०२५, दिनांक २६/०४/२०२४ for filling the post on clock hour basis, revised from time to time". The Government Resolution & Circular are available on the website:mu.ac.in.

Application with full details should reach the **PRINCIPAL, S. D. ARTS, V. S. APTE COMMERCE, M. H. MEHTA SCIENCE COLLEGE, PALGHAR, Late Shivaraj Dada Tiwari Marg, Palghar, Dist. Palghar, Pin – 401 404 within 15 days** from the date of publication of this advertisement. **This is University approved advertisement.**

Sd/-
PRINCIPAL

Licensed to post without prepayment under WPP No. U(C)-109/2024-26
Postal Regd. No. DL (C)-05/1241/2024-26
UNIVERSITY NEWS 63 (28) July 14-20, 2025
Regd. No. RNI-7180/1963
Published on Monday: 14-07-2025 No. of Page 48 including Covers
Posted at LPC Delhi RMS, Delhi-6 on Tuesday/Wednesday every week

Association of Indian Universities: Your Partner in Higher Education
ISSN-0566-2257

UNIVERSITY NEWS

A Weekly Journal of Higher Education

Association of Indian Universities

AIU

- Association of Indian Universities, a century old premium organization and the world's largest Universities network dedicated to fostering academic excellence and quality of enhancing higher education in India.
- Provides voluntary service to Higher Education Sector with a Non-Profit initiative.
- At the forefront of shaping higher education policy since its establishment in 1925.
- Plays proactive role in the areas of Equivalence Degrees/ qualification of Indian and Foreign Universities, Research, Sports and Youth Affairs.
- Membership of 1022 universities including 16 international universities.
- Rich legacy is adorned with visionary leaders like Dr Sarvepalli Radhakrishna, Dr. Shyama Prasad Mookerjee, Dr. Zakir Hussain, and Dr AL. Mudaliar, who have served as Presidents of AIU.

"University News"

- Boasts a circulation of 5,000 plus.
- Available in print and e-copy.
- Unique opportunity to connect with a rapidly growing and engaged audience across higher education in India and abroad.
- Has a large readership from Universities and colleges.
- Sought after Journal by all academicians.

WHY ADVERTISE WITH AIU?

WIDE REACH AND INFLUENCE

COMPREHENSIVE CONTENT WITH RICH ARTICLES ON HIGHER EDUCATION

TARGETED AUDIENCE OF EDUCATORS, LEADERS, GOVERNMENT, EDUCATIONAL RESEARCHERS AND FACULTY OF HIGHER EDUCATION

HIGHER ENGAGEMENT THROUGH PRINT AND E-COPY

COST EFFECTIVE ADVERTISING COMES AT EXTREMELY COMPETITIVE RATES COMPARED TO OTHER FORMS OF ADVERTISEMENT

WHAT CAN WE ADVERTISE?

- ADMISSION NOTICES
- PUBLICATIONS
- RECRUITMENT NOTICES
- FACULTY PROGRAMMES
- WORKSHOPS
- INTERNATIONAL CONFERENCES
- FDPs
- SPORTS PROGRAMMES

Your Call to Action

- Spotlight your University's events, faculty programs, publications, or services through advertisements in a publication that directly reaches decision-makers and influencers within India's leading universities and educational institutions.
- Can gain maximum visibility at minimal costs

For any assistance with your advertisement needs, please feel free to contact the undersigned:

Ranjana Parihar
Joint Secretary, Association of Indian Universities
16, Comrade Indrajit Gupta Marg New Delhi- 110 002
Telephone: 011-23230059 (Ext. 208, 213)
Mobile: 9818608651
Emails: publicationsales@aiu.ac.in,
advtun@aiu.ac.in(for advertisements),
subsun@aiu.ac.in(for University News Subscription)

Edited, Printed and Published by Dr Sistla Rama Devi Pani, on behalf of the Association of Indian Universities, AIU House, 16 Comrade Indrajit Gupta Marg (Kotla Marg), New Delhi-110 002. Phones: 23230059 (6 Lines). Fax: 011-23232131, E-Mail : sgoffice@aiu.ac.in, advtun@aiu.ac.in, publicationsales@aiu.ac.in, subsun@aiu.ac.in (for subscription), ramapani.universitynews@gmail.com, unaiu89@gmail.com, universitynews@aiu.ac.in, Website: http://www.aiu.ac.in
Printed by Chandu Press, D-97, Shakarpur, Delhi-110 092 Phone: 42448841, chandupress@gmail.com