

**Souvik Bhattacharyya**



**Contem-  
poraneity  
into IQAC**

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**Higher  
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# IQAC

## NEWSLETTER

### JADAVPUR UNIVERSITY

Vol. I, Issue I, August, 2022

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Prof. Suranjan Das, Vice Chancellor and Dr. Snehamanju Basu, Registrar attended the award ceremony of NIRF 2022 at New Delhi and received the certificates for JU



# From the desk of Director, IQAC

I am elated to present the inaugural issue of the Jadavpur University-IQAC newsletter to the university community. At this happy hour I deeply miss Prof. Samantak Das, Pro-Vice-Chancellor, who unfortunately left us for his heavenly abode in a sad and untimely manner. Samantak and I have handled the IQAC of the university for more than a decade and the newsletter is a brainchild of our joint thought. Till his last day, Samantak led the editorial team of the newsletter and made important suggestions to determine the course of this issue. It is extremely unfortunate that he is not among us anymore and this issue is our revered tribute to him.

Our university is one of the premier educational institutes of the country, a status achieved through the contributions of its students, researchers, faculty members, administration and staff members and also alumni. This year we are particularly happy with the high rank (4th in the university category in India) in the NIRF ranking conducted by the Ministry of Education, Government of India. This performance is notwithstanding the shortcomings that we have, in terms of funding and space, and is the result of continuous striving by all stakeholders towards high quality education and research. On this occasion, I take pride in the efforts undertaken by the IQAC to gather data and prepare the report for submission to NIRF. We are very happy with the outcome of our endeavour and I thank the administration, IQAC committee members and the entire university community for standing behind us.

Following the decisions of the editorial team, this issue of the newsletter contains feature articles, news articles and important news items which we have gathered from the departments and schools. The invited feature articles are written by well-known academicians and administrators. The opinions of the authors are their own developed through wisdom and years of experience. We thank them for accepting our invitation and sharing their thought-provoking articles for the newsletter. For this issue, we have invited news items upto May, 2022.

We would like to express our gratitude to the honorable Vice-Chancellor for his support and encouragement in publishing the newsletter. We also thank the university administration, all the faculty members, students and staff members, with whose support we could come out with this issue. My

personal thanks go to the IQAC team working on the newsletter, the editorial team members and the IQAC committee members for their time and guidance.

This issue is only the start of a new journey and I am sure that the newsletter will improve in its content and presentation in future issues with support from everyone. I would also request our readers for their suggestions and opinions towards the improvement of the newsletter. I am sure that the newsletter will play a vital role in informing the university community about the activities of the university, as well as convey a positive and accurate perception of the university to the public at large.

**Prof. Amitava Datta**  
Director, IQAC, JU

## IQAC COMPOSITION

<b>Prof. Suranjan Das</b>	Vice Chancellor and Chairman, IQAC
<b>Prof. Chiranjib Bhattacharjee</b>	Pro-Vice Chancellor
<b>Prof. Samantak Das</b>	Pro-Vice Chancellor
<b>Prof. Anindya Jyoti Majumdar</b>	Dean, Faculty of Arts
<b>Prof. Chandan Mazumdar</b>	Dean, Faculty of Engg. and Tech.
<b>Prof. Subenoy Chakraborty</b>	Dean, Faculty of Science
<b>Prof. Matangini Chattopadhyay</b>	Dean, Faculty of ISLM
<b>Dr. Snehamanju Basu</b>	Registrar
<b>Mr. Gour Krishna Pattanayak</b>	Finance Officer
<b>Dr. Sanjay Gopal Sarkar</b>	Joint Registrar
<b>Prof. Kunal Chattopadhyay</b>	Faculty Member, Comparative Literature
<b>Prof. Abhijit Gupta</b>	Faculty Member, Department of English
<b>Prof. Swarnendu Sen</b>	Faculty Member, Mechanical Engineering
<b>Prof. Abhijit Chanda</b>	Faculty Member, Mechanical Engineering
<b>Prof. Rajib Bandyopadhyay</b>	Faculty Member, Instrumentation & Electronics Engg.
<b>Prof. Debajyoti Ghoshal</b>	Faculty Member, Department of Chemistry
<b>Prof. Mitali Mandal</b>	Faculty Member, Department of Physics
<b>Prof. Nandita Dhawan</b>	Faculty Member, School of Women studies
<b>Mr. Sanjay Budhia</b>	Noted Industrialist and External Member
<b>Prof. Amitava Datta</b>	Director, IQAC

# JU - Internal Quality Assurance Cell (IQAC)

## An Overview

The University IQAC was constituted in 2003 and has been regularly reconstituted following the UGC regulation. Since its inception, IQAC has worked with a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institution. The present IQAC committee was formed in September, 2021. The committee members deliberated on specific quality related issues and suggest to the university strategies and implementation methodologies on the same. The suggestions of the IQAC are referred to the statutory authorities of the university, like the Executive Council and Faculty Councils, for discussion and subsequent implementation. The IQAC also gathers and analyzes quality parameters in terms of teaching-learning-evaluation, research and consultancy, student progression and activities, governance and others from the University and its stakeholders to comprehend the progress of the university in academics and research.

The IQAC activities have been executed with the sincere efforts and effective participation of the two Programme Assistants: Ms. Sayantani Chakraborty and Ms. Moumita Ghosh since 2016.

### **IQAC initiatives in the year 2021-22**

- ▶ IQAC gathered and synthesized data to submit report in the prescribed format for NIRF 2022 in the portal within stipulated time. IQAC also prepared all the responses with proper justifications to the queries raised by Team NIRF.
- ▶ IQAC also participated in a survey conducted by AIU on the different matrices on NIRF Ranking framework.
- ▶ IQAC is coordinating the activities NAAC SSR and AQAR preparations and submission through interaction with the University stakeholders. NAAC Faculty coordinators and University Publication Officer are working in conjunction with IQAC for the same.
- ▶ IQAC designed and implemented the online feedback system for gathering the feedback on curriculum, satisfaction survey and course feedback.
- ▶ IQAC has given the necessary support, as requested, for the submission of data in global ranking frameworks,

like QS ranking and THE ranking.

- ▶ IQAC conducted detailed analysis of ranking parameters of the previous years to identify the areas of improvement, took remedial steps and forwarded necessary suggestions to the University.
- ▶ IQAC submitted data on National Scientific and Technological (S&T) Survey on R&D in the relevant portal of Government of India.
- ▶ Data Submission in the Education India portal of Government of India was executed by IQAC.
- ▶ IQAC was involved in projecting the University in the BGBS (Bengal Global Business Summit) organized by the Govt. of West Bengal.
- ▶ IQAC documented various programmes/activities leading to quality improvement and other project requirement.
- ▶ IQAC prepared posters and presentations for highlighting the achievements of the University on quality circles and ranking frameworks
- ▶ IQAC is involved in the developmental activities as decided in the Committee meeting for the quality enhancement of the University.
- ▶ IQAC members participated in quality-related workshops and seminars

### **IQAC Committee Meeting**

Three committee meetings of Internal Quality Assurance Cell were organized during September, 2021 to May, 2022. Various parameters for NAAC accreditation of the university were thoroughly discussed during the meeting. Many important measures were adopted based on suggestions from the members. Some of these are:

- ▶ Feedback from the stakeholders will be taken in a structured manner online.
- ▶ New policy will be adopted by the University for Mentoring of students.
- ▶ University will formulate a mechanism to keep the placement records of the students more effectively.
- ▶ IQAC will prepare a record of the publications, sponsored project,s and consultancy work performed by the University stakeholders annually.



# On Breathing Contemporaneity into IQAC Institutional Knowledge Analytics to replace Prescriptive Regulation

By **Souvik Bhattacharyya**, Vice Chancellor, BITS Pilani<sup>1</sup>

- ▶ Too voluminous an exercise that's not intellectually stimulating, routine data may be reduced
- ▶ Generally missing refined design thoughts
- ▶ Doesn't need to be this tedious for the intended goal
- ▶ Please craft a leaner process to achieve even much more
- ▶ It's dated, please bring in a more contemporary yardstick that leads to predictive insights

These are the impressions I often receive while interacting with IQAC folks of higher education institutions (HEI) who prepare reports such as AQAR and SSR as laid down by NAAC. The regulators also prescribe that the office that does this work is named IQAC, with a composition prescribed for a Committee of about 15 to 20 members.

The Indian School of Business, Hyderabad is the top B-school in India with a global rank of 32 (FT World MBA Ranking 2022), probably the highest current global rank of any Indian HEI. ISB achieves this without following this IQAC prescription; neither are the IITs and IIMs required to ensure quality through such prescriptive exercises. These Institutes are ranked much higher than the ones that are embedded in the IQAC scaffold.

Are our Universities becoming overly external regulatory compliance focused, and in the process they are losing focus on what are the essential functions of a University, that leads to sustained quality, scholarship and graduating individuals of substance, individuals who make a difference to the nation? NAAC was established about 28 years ago; it's time that quality assurance (QA) as enshrined in the IQAC structure is reimagined - the format, the structure, and the outcomes sought—the entire canvas—infusing contemporary KPIs across HEI functions leading to actionable insights for the institute leadership.

Today HEIs are required to be transformation-ready to perform at levels consistent with its abilities and resources, the entire workspace being immersed in change. To sustain

their reputation, one needs to navigate the competition with novel strategic plans which has to be armed with evidence based agile decision making. This article intends to suggest a niftier QA structure across the HEI, at least for leading research Universities, to provide those evidences accompanied by data.

Here, I am compelled to draw an analogy from the manufacturing sector to drive the argument. QA in manufacturing today emphasises on integrating quality with individual workflows and business processes at every step of manufacturing. It is increasingly perceived as a strategic imperative for an enterprise. This resonates, albeit in a different context, with the QA governance structure in the Universities.

While internal QA was envisaged to drive success, the proposed *avatar* is going to be no different in its objectives; however the pathway is largely different. It is typically christened as IKAC - *Institutional Knowledge Analytics Cell*. Several Universities in the USA have named them as *Office of Institutional Research*<sup>2</sup>. The focus clearly is on the actionable insights that is derived out of the data, through a process of discovering, interpreting, and finally communicating the transpiring patterns in the reported data. The institute has to create an ecosystem where the data flows seamlessly and in an automated manner from functional units to finally converge at the IKAC. Dead data is of no value, even though significant resources were consumed to generate that data. Hence we must make the data come alive, do brilliant visualizations, build scintillating dashboards—all for the leadership to get excited and supported in taking agile actions. Transformation will happen, KPI gradients will rise, and finally success will stare at you calling for celebrations.

Institutional knowledge is the aggregated information and wisdom of the institute and its faculty and non-academic staff possess. This may comprise tangible and intangible attributes and knowledge related to various functions of the HEI while capturing its distinct way of operating, e.g. vision, genesis of decision making, expertise and skill-sets, community and stakeholder networking and contacts,

<sup>1</sup> Former Vice-Chancellor, Jadavpur University & Professor of IIT Kharagpur and University of Canterbury.

<sup>2</sup> Example Universities: <https://oir.harvard.edu/> <https://ir.mit.edu/> <https://iro.caltech.edu/>



policies, techniques, processes, best practices, values, and experiences that span the Institute's history or are brought into the university by new recruits—often termed as the *collective memory* of the University. As employees leave an organisation, we do not want their institutional knowledge to go with them. We must capture them before they exit. It's crucial to document institutional knowledge and analyse them that serve as a foundation and guideline, for example, for developing new courses and help identify and bridge gaps between emerging areas in knowledge and strength of the academic units within an institution.

An IQAC, as the name suggests, functions as a body that merely keeps its tabs on basic functions of an institution and checks if basic guidelines of quality are followed; it does not provide directions from data analytics, neither does it draw insights for future recommendations in strategy and actions. An IKAC can help attract or retain top talent by identifying star performers or the ones who could make departments grow. IKAC can throw useful insights on workforce such as domain-wise impending superannuation or the number of faculty having key skills or knowledge to make national and international impact. One of the most critical functions of an IKA Cell is to be able to capture generated knowledge in the academic institute which IQAC does not prioritize.

Management of knowledge thus generated within an institution through proper cataloguing of pedagogical contents, new knowledge created in the form manuscripts and peer-reviewed research help measure the intellectual output of the institution, a measure that a traditional IQAC may not be mandated to do. The documentation however is the first step. What an IKAC should do is to

analyse the quality of such documentation and output by using both qualitative and quantitative metrics to arrive at estimates of importance of the institute and its non-local influence. The mandate is much wider, deeper and more cerebral than what we have been pursuing. It also helps in benchmarking or even taking a radical shift in direction for better positioning of the institute. Data driven decision engineering is what differentiates an IKAC from an IQAC.

An IKAC can help determine if the average credentials of the incoming faculty have improved over the past three or five years, say one standard deviation away from the current mean and whether that helped the institute in gaining prominence in research output quality, teaching quality (measured in terms of % acceptance of incoming students) and enhanced Industry engagement (greater number of Fortune 500 or top domestic companies visiting campus for recruitment and/or enhanced industry research grants or educating working professionals to scale).

Let us spend some thought on the Ranking process and how the IKAC plays a pivotal role there. It has been famously said that Ranking is like a health check on the institute; useful in some ways, but must not be thought of as a perfect yardstick to assess the institute, let alone understand it. They are easily accessible, and they do provide a simple comparison among similar institutes; quite debatable in many ways, particularly the segment on reputation and perception.

Many new yardsticks are appearing on the horizon of structured ranking data that we need to organize. For example, already University research performance is being scanned through a UN SDG lens comprising the 17 individual SDGs. How does the

University fare in terms of research leading to societal impact—related to, for example, food, clean water, energy, environment, sustainability—how far the research is translational beyond usual publication metrics. In these scenarios, the IKAC is going to be far more adaptable and agile to manage such data.

Even new parameters are being defined to assess the quality and impact of research. To eliminate unscrupulous attempts to enhance citations data by an institute, we may want to measure *non-local Influence quotient (NLIQ3)* of the publications, meaning fraction of total citations received from outside the University, a quantity indicating exclusion of self-Institute citations in addition to the usual author self-citations. NLIQ is a robust indicator of an institution's scholarly influence in the community and provides insights to the leadership about the impact of new knowledge created by the faculty. Journals realized this and report external citations. ScimagoJR tracks and considers it as an important parameter in the determination of the rank of a journal. Isn't it time HEIs, ranking agencies, and regulators adopt this?

We must be vigilant of the fact that simple citation-based indicators may not be appropriate yardsticks of research performance in several domains because of their limited coverage in the standard databases such as Scopus, Web of Science etc. Hence we employ source normalized parameters (e.g. SNIP) that corrects for field average number of references. We would also do well to start monitoring fraction of SJR (Scimago Journal Rank) Q1 & Q2 publications, fraction of CORE ranked conference articles (relevant in computing disciplines) etc. to refine our understanding of the quality of research publications of the University.

3 G Ginde et al., ScientoBASE: a framework and model for computing scholastic indicators of non-local influence of journals via native data acquisition algorithms. *Scientometrics*, 108 (3), pp. 1479-1529, 2016

We may also start looking at more probing yardsticks in terms of graduate employability compared to the routine ones we use today. In addition to median salary, max and min salary, and placement percentage, we may wish to track the fraction of graduates employed in Fortune 100/500 and a defined set of leading domestic companies across various sectors, number of distinguished alumni from the University (set threshold to filter – in industry, academia, enterprise creation, HNI), footprint of the University in the innovation/incubation workspace (no. of start-ups incubated in the University incubator, by its graduates) and unicorns out of an institute, fundraised by these enterprises. Benchmarking against competitors and peers is better done deploying these new yardsticks.

Internationalisation is one of the functions in which Universities work hard to ink collaborations, organise twinned programs, fund mobility of student and faculty, and introduce joint doctoral programs. We need robust parameters to assess the quality, pedigree and impact of these international collaborations. We need to define objective quantifiers that are based on measurable outcomes from such partnerships. On industry engagement, we must measure how the HEI is engaged in terms of student internships (median stipend, number of PPOs), industry funded research and work integrated education for working professionals.

Finally, a few words on the governance of such a unit. To ensure that all these emerging functions are monitored well, and automated data flow

processes are established, the IKA Cell team will require several full-time professionals which should not be left to the University Professors in terms of execution and delivery. Intellectual support may emanate from the academics. Follow good data hygiene practices, provide hierarchical access across units and function heads. Stop the use of legacy tools to process data; a central ERP is essential for the IKAC to be successful. We must not isolate the IKAC—it ideally should report to the HEI leadership. It has to be an all pervading resource; the analytics function should be integrated with the University vision, and the short and long term strategic planning of the Institute. Make the data come alive through brilliant visualisations and impactful dashboards that exude insights.

## JU-RANKINGS & ACCOLADES



**Overall Catagory: 12th**

**University Catagory: 4th**

**Engineering Catagory: 11th**

**Research Catagory: 13th**

**Pharmacy Catagory: 18th**



**QS World University Rankings 2023**  
**701-750**



### QS World University Rankings by Subject 2022

QS WR Arts and Humanities 2022: **401-450**

QS WR English Language & Literature 2022: **251-300**

QS WR Pharmacy & Pharmacology 2022: **251-300**

QS WR Chemical Engineering 2022: **351-400**

QS WR Chemistry 2022: **451-500**

QS WR in Mechanical Engineering 2022: **451-500**

QS WR in Physics & Astronomy 2022: **551-600**



### World University Rankings 2022

**801-1000th**

Asia University Rankings 2022  
**251-300th**

Engineering and Technology 2022  
**601-800**  
Physical Sciences 2022  
**801-1000**  
Emerging Economics 2022  
**251-300**

# Quality and Excellence in Higher Education: the case of Jadavpur University

by **Supriya Chaudhuri**, Professor (Emerita), Department of English, JU

**M**y chapter in *India Higher Education Report 2019: Governance and Management of Higher Education in India*, edited by N.V. Varghese and Garima Malik<sup>1</sup> outlined the global theoretical debates surrounding quality and excellence in higher education and drew upon my own experience at a relatively small and poorly funded state university in India that has nevertheless achieved a high reputation nationally and internationally for its academic excellence. It ended by asking how far this reflects real possibilities within our much-criticised public university system, and is replicable as a model by other institutions. The case of Jadavpur University and its success in creating a research environment within the constraints of public higher education stood at the very core of my discussion.

## The Higher Education Landscape and its Regulators

The notion of ‘managing quality and excellence at the institutional level’ draws upon a number of presuppositions regarding higher education as an organizational field, where the relatively abstract notions of *quality* and *excellence* can be associated with specific parameters. ‘Managing’ also suggests the operation of market ideologies within a competitive and ever-developing field. The emergence of this discourse in India followed on from worldwide developments in the higher education sector. The formation of the National Assessment and Accreditation Council of India (motto, *NAAC for Quality and Excellence in Higher Education*) in 1994, and the current focus on institutional rankings, suggests a conscious adoption of the evaluation apparatus required by a modern knowledge economy. Quality and excellence are at the forefront of national concerns.

What are the issues here? Are quality and excellence to be understood *extrinsically*, as a set of parameters to be satisfied for accreditation or ranking? Or are there *internal* or *intrinsic* criteria governing an institution’s aspiration for excellence, and how are these internal motivators incorporated? How are targets set, motivation inculcated, work done, and self-assessments imposed within teaching-learning and research environments? Higher education in India today presents a complex and uneven picture, where ‘quali-

ty’ and ‘excellence’ are still aspirational categories.

In India, long before the formation of NAAC, higher education institutions were under the care of the University Grants Commission (UGC), which came into existence on 28th December, 1953 and became a statutory Organization of the Government of India by an Act of Parliament in 1956. The UGC website claims ‘the unique distinction of being the only grant-giving agency in the country which has been vested with two responsibilities: that of providing funds and that of coordination, determination and maintenance of standards in institutions of higher education.’ Certain councils were responsible for specific branches of tertiary education like the All India Council of Technical Education (AICTE), and the Medical Council of India (MCI). Such regulators did conduct periodic assessments of institutions, departments and programmes, disbursing research and infrastructural assistance according to performance, or *quality*. By contrast, NAAC does not affiliate, recognize or de-recognize institutions, nor could it conduct the kind of rigorous academic and financial audit regularly undertaken, both for individual departments and for faculties or institutions as a whole, by the UGC, or by the Departments of Science and Technology, of Atomic Energy, or other funding bodies.

But post-1994, after the creation of NAAC, a new discourse emerged around quality indicators and assessment. This led to the formation of Internal Quality Assurance Cells and record-keeping for the preparation of institutional Self-Study Reports, and some publicity over the award of grades. But these grades, though indirectly linked to UGC funding, were never the only markers of institutional quality and excellence. Rather, the country’s funding bodies continued to use their own criteria for assessing and rewarding performance, while NAAC promoted a *debate around quality*, focusing on a variety of markers and indicators, partly adopted from international agencies and partly devised for Indian conditions. Meanwhile, the MHRD’s NIRF, having invited institutions to submit data annually, began listing the best universities in the country, thus inviting attention to *excellence*, as reflected in competitive rankings. Interna-

<sup>1</sup> Supriya Chaudhuri, ‘Managing Quality and Excellence: Conceptual and Institutional Factors,’ Chapter 11, *India Higher Education Report 2019: Governance and Management of Higher Education in India* ed. NV Varghese and Garima Malik (New Delhi: Sage/ CPRHE, NIEPA, 2020).



tional rankings by Quacquarelli Symonds (QS) and Times Higher Education (THE) were also eagerly followed.

## Quality Improvement

Efforts to determine higher education quality at the highest level in India today remain controversial, needing introspection on the part of the best institutions. The existence of multiple regulators, with varying financial powers, is often blamed for disorder in the higher education landscape, blocking the road to excellence. Further, the higher education budget has shown steady decline. In May 2017, the UGC announced a scheme granting 'Graded Autonomy' to highly ranked institutions, with those in the top rank having the power to confer degrees, start their own courses, and establish off-campus centres abroad (UGC Graded Autonomy Regulations, 2018). Meanwhile, the number of universities and colleges has grown exponentially, though quality remains uneven, campuses are in disarray, and academic issues are overshadowed by political interests. This malaise affects Centrally funded institutions as well as State-run ones, though the former have more resources to devote to infrastructure, equipment, teaching-learning and research. UGC funding, received by both Central and State HEIs (though not by the IITs) is often delayed, or held up in bureaucratic red tape; research fellowships and scholarships are particularly badly affected. Through a gradual and momentous shift in the higher education terrain, more than 60% of students now study in privately managed institutions (including colleges), since while private universities number only 343, 78% of colleges are privately managed. India's GER for tertiary education, at around 25%, is extremely low compared to the USA's 86.7%, the UK's 79.94%, Germany's 65.5%, France's 64.4%, Japan's 62.2%, and even China's 39.4% and Brazil's 46.4% (2014 figures). India produces 24,000 PhDs annually, the fourth largest number in the world but still far behind the US, which produces 68,000 (OECD Science Technology and Innovation Outlook 2016:147). The quality of these PhDs is generally unsatisfactory except in the country's top institutions. A substantial proportion of the best PhDs produced annually in the US are actually earned by Indian doctoral students, indicating a continuing and unchecked brain-drain.

## Quality and Excellence: an Institutional Example

Jadavpur University is a State University located in the city of Kolkata, West Bengal. It was established as a university post-Independence, in 1955, but traces its origins to the Swadeshi movement and the foundation of the National Council of Education, Bengal, in 1906, to impart technological education to young Indians in opposition to colonial educational policy. Its largest faculty, that of Engineering

and Technology, is buttressed by excellent faculties of Arts and Sciences. Its unique interdisciplinary Schools have now been placed within the Faculty of Interdisciplinary Studies, Law and Management. In the last NAAC accreditation in 2014 (as well as in all previous ones) Jadavpur was placed in the highest grade, Grade A, with a CGPA of 3.68 on a scale of 4. Despite receiving far less funding than Central universities such as Delhi, Jawaharlal Nehru University (JNU) or Hyderabad, or the IITs, Jadavpur has always positioned itself as a leading research university, a vision aided by two important factors. It was primarily a non-affiliating institution (that is, without affiliated colleges), with rigorous admission procedures, and a high degree of internal cohesion in terms of administrative structures and academic interaction. Another feature is the pursuit of interdisciplinary research areas as well as disciplinary innovation by Schools and Centres. Jadavpur has consistently been able to attract highly qualified faculty and its research output is among the best in the country. But the disparity in salary and benefits with Central or private universities, the lack of University fellowships for doctoral students, limited research/travel funds for faculty, poorly maintained infrastructure, inadequate hostel facilities, insufficient faculty housing, and lack of provision for international students and faculty are severe constraints.

As against these problems, some of which Jadavpur shares with other State universities, there has been a real drive to tap into the schemes through which national bodies such as the UGC, DST, DAE, and so on have sought to promote research and academic excellence in our public universities. Over half of the University's 37 departments receive special assistance through programmes such as DST-FIST, UGC-SAP: several are designated as Centres of Advanced Study. The University provides inputs to critical sectors such as defence and atomic energy, and played a pivotal role in the Integrated Guided Missile Development Programme, which led to the establishment of a dedicated Advanced Technology Cell (ATC) for coordinating DRDO projects at Jadavpur, a continuing relationship that has culminated in an agreement to set up a larger centre, funded by the DRDO, to be housed in the West Annexe of the Jadavpur Main Campus. It is identified as a knowledge partner by the NITI Aayog and as a nodal centre for syllabus creation by the RUSA Secretariat. It has recently been awarded funds to the sum of 100 crores under RUSA 2.0 for research and academic development, infrastructure improvement, modernising laboratories and other facilities and buying equipment. Jadavpur is also a Mentoring Institute in the TEQIP-III programme of the MHRD, and a member of the Confederation of Indian Industries. The French multinational group AREVA sponsors PhD scholars carrying out research in nuclear and

renewable energy. Additionally, the university has consistently engaged in internationally funded collaborative research programmes, as well as dual-degree or joint academic courses with universities abroad, undertaken consultancy through its Industry-Institute Partnership Cell, attracted international scholars for short visits to its Departments, carried out MHRD Global Initiative for Academic Networks (GIAN) programmes, built up academic links and exchanges with leading global universities, initiated innovative research projects globally (e.g. in Climate Change), fostered a culture of research leadership and exchange from the student level upwards through programmes like SYLFF (Sasakawa Young Leaders Fellowship Fund) and EU-Erasmus Mundus/ Erasmus Plus schemes, and connected to the community through social outreach.

The point here is not achievement. This pursuit of research and academic excellence can only be sustained through two factors. First, the support obtained from national and international bodies – from the UGC and DST to the EU. Second, the efforts made by the university community of students, teachers, non-teaching staff, administrators and alumni, to compete and qualify for these opportunities. Jadavpur University is an example of the good utilization of available resources by a public, 'State', as opposed to 'Central' university in a climate of declining confidence in the public university system. Despite severe constraints, the public higher education system in India *can* encourage and reward academic quality and excellence; our better HEIs have availed of national and international schemes on offer. Government funding must be sustained if public universities are to honour their commitment to the poor and disadvantaged citizens of India. Moreover, the drive

for quality and excellence originates within the university itself. It is promoted by the commitment of faculty and students, and co-operation by the administration. This requires autonomy for the institution, respect for students as young adult citizens with a real responsibility for the future, and respect for faculty as mentors, interlocutors, and educational thinkers. It is from a learning environment of this kind that the university can play a role in bringing about social change. The 'hidden' aspects of faculty work: project initiatives and innovation by small research clusters, as well as pedagogy and research, must be given a central, and publicly acknowledged, place at the heart of the university's organizational structure, through a Research and Development Wing. Additionally, some degree of internationalisation is desperately needed. Only through student and faculty mobility, in India and abroad, can awareness, exchange, and competitive excellence be achieved.



**Jadavpur University press won the award for printed book of the year in Indian languages at the PUBLISHING NEXT INDUSTRY AWARDS 2021.**

# FACULTY ACCOLADES

## AWARDS, HONOURS, AND RECOGNITION

### **Prof. Sivaji Chakravorti,**

Professor, Electrical Engineering Department, has been re-elected as the Vice-President of Indian National Academy of Engineering (INAE) for January 2022-2024.



**Prof. Kunal Roy** has been awarded Certificate of appreciation Highly Cited Author 2021 for publishing research in the top 5% of highly cited works from Indian institutions.

**Prof. Sudipta De** was nominated by the BIS as the Head of the six-member Indian delegation in the 13th Plenary Meeting of ISO/TC 238 'Solid Biofuels' during 19-20 May 2022. India participated in such a meeting for the first time as a participating member.

## University Research Publications

The faculty members, research scholars and students of the University are actively involved in research which is reflected in the number of high quality publications and citations of publications. The outcome of the quality publication is always reflected in the ranking scores of the University in NIRF and other global rankings over the years. Figure 1 shows the growth of publications of JU from the SCOPUS database over the years. It clearly shows a significant rise in the publication numbers almost with the turn of the century. The three-yearly cumulative publications and citations of the University, as communicated by Team NIRF, have been reported in Table 1. The rankings of the University among all the Research Institutions are also shown in the table.

Figure 2 shows a subject-wise distribution of the publi-

cations from the University in the year 2021. It shows the largest share of publication is from Engineering, followed by Physics, Computer Science, Chemistry, Material Science and others.

It is further to state that these quantitative figures taken from SCOPUS often do not include the high quality of research and academic publications from the faculty members and scholars of the Faculty of Arts in the form of books, book chapters, and journal publications not listed in the above database. However, their contribution is duly recognized in the high QS ranking in the broad subject area of Arts and Humanities, where the University is placed in the band 401-450 globally and is 5th among the Indian Universities and Institutions.

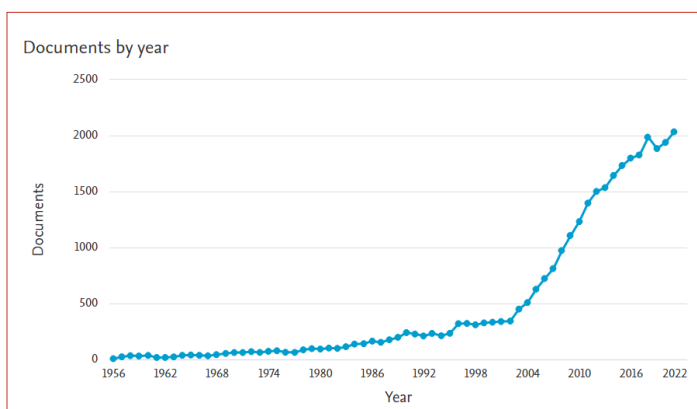


Figure 1

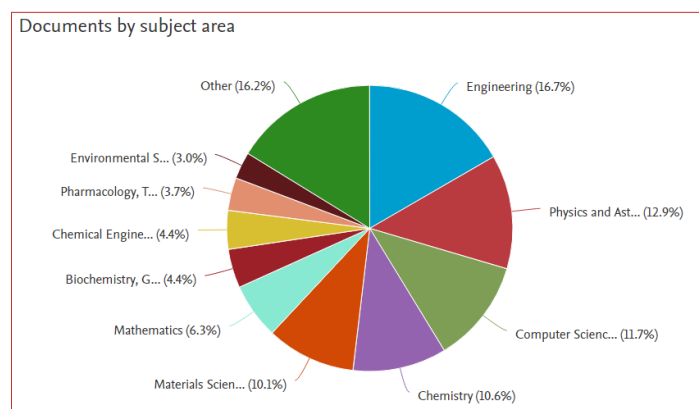


Figure 2

**Table 1. Number of publications and citations from Jadavpur University (three year cumulative data) as reported by NIRF from two global databases**

NIRF Year	SCOPUS		Web of Science (WoS)		NIRF Research Inst. Ranking
	Publications	Citations	Publications	Citations	
2022	5792	38303	4878	32133	13
2021	5608	34085	4836	28262	17
2020	3762	18389	2985	11955	(Not introduced)



# Interview with Prof. Sujoy Baitalik on Publication in High-impact Journals by Prof. Debajyoti Ghoshal

The **Nature Index** is a database that attempts to measure objectively the scientific output of different institutions and countries by taking into account publications in 82-select high-quality science journals. The ranking is conceived by Nature Research and the journals are selected based on reputation across the natural science disciplinary spectrum by two panels made up of almost 60 actively publishing scientists. The ranking for the year 2022 considering the publications in the period 1.12.2020 and 30.11.2021 was declared on 8 May 2022. The institutions are listed based on **Count** (number of research articles having authors from an institutions) and **Share** (the fractional count of institution of the authors per article). A high **share** value indicates more fractional contribution of an institution in the research publications in the accounted journals.

Based on the **share** value of publications, Jadavpur University is ranked 19th in the area of Physical Science among all Indian higher education and research institutions and 1st among all the Universities in India. Jadavpur University is also ranked 23rd in Chemistry, 11th in Earth and Environmental Science and 24th overall (i.e. considering all disciplines) among the Indian Institutions. Among the Indian Universities, Jadavpur University is in the 4th position both in Chemistry and Earth and Environmental Science and in the 3rd position Overall.

The researchers from Jadavpur University contributed to 18 journal papers during the year in the select group of journals accounted by Nature Index, with a share score of 9.77. Though this share is respectable in the national context but compared to the top performers, like Indian Institute of Science, the numbers are quite low. IISc scientists contributed in 209 journal papers in the select journals amounting to a share score of above 99. Considering that publications in high impact journals draws higher visibility and impact to the scientific work among the peer group, the researchers and faculty members of Jadavpur University should consider publishing their work in the top journals, like those chosen by the Nature group, more frequently.

**Prof. Sujoy Baitalik** of the Department of Chemistry and his research group contributed in 4 papers published from Jadavpur University during the year and scored 3.5 out of the total share of Jadavpur University.

## Nature Index Ranking of Institutes based on Publications in Select Journals



<https://www.natureindex.com/institution-outputs/generate/all/countries-India/academic>

**Prof. Debajyoti Ghoshal of the Department of Chemistry and member IQAC Committee of Jadavpur University interacted with Prof. Sujoy Baitalik about his experience as a Researcher at Jadavpur University.**



<Sujoy Baitalik

Debajyoti Ghoshal>



**DG:** Congratulations Sujoy-da for the publications from your group in the top journals selected by Nature. I know you are performing high-quality research over the years and also that you always go for publishing your work in top journals of your field. However, there are various myths about publishing in these top journals. Would you tell our readers about these myths against the reality?

**SB:** Thank you Debajyoti for your compliments. You are absolutely correct that there are several myths regarding publishing papers in top journals. There is a general conception that high impact journals take longer time to review and the review process is always very

difficult. However, the fact is that they are faster and time-bound in most of the cases and the rigorous review process facilitates the learning procedure. Publishing in a good scientific journal having high impact factor is always good, although maintaining a delicate balance between quality and quantity is quite difficult.

**DG:** What challenges have you faced during the initial days at Jadavpur University on your way to become a renowned scientist?

**SB:** I am a late starter as individual researcher and joined the Department of Chemistry of JU in the late 2005 after serving more than seven years at Scottish Church college. Immediately after joining, I submitted two major research projects (One DST and another CSIR) and fortunately both were funded. Struggles started immediately after receiving the fund. I have faced really hard times in setting up my laboratory and installing the equipment. I still remember those days when my fluorimeter was lying within the box for

about a year at the corridor of the Analytical Chemistry building. Another challenge that I faced initially was to characterize the synthesized materials and to investigate their physicochemical properties due to lack of sophisticated equipment.

**DG:** Of course there are many disadvantages, but what are the major advantages of doing scientific research at Jadavpur University?

**SB:** In spite of some shortcomings, there are several advantages of doing scientific research at JU. The most importantly, I find very good research environment in our Department as well as in the University. I am particularly grateful to our senior colleagues who actually built a good culture for doing research. The apex administrative personnel always insisted us to carry out research. I still remember the day when the then VC and Pro-VC personally came to my office and resolved the problems related to space for setting up my laboratory and the instrument room. I was overwhelmed by their kind ges-

ture. I would also mention here the support that I received from our Finance Officer, who always encouraged me and helped to resolve various issues regarding finance and purchase.

**DG:** What will be your advice to the young faculty members and scholars to make them active researchers?

**SB:** We have lots of highly motivated, enterprising and talented young faculty members and scholars having high potential for pursuing excellent research work. The patience is very important to do good science. For me, it took almost five years to publish my first paper in "Inorganic Chemistry" journal from JU. It is better to publish in internationally recognized journals for their high reputation, better visibility and wide acceptability. This also helps someone to establish their identity in the scientific community.

**DG:** Thank you Sujoy-da for sharing your views.

**SB:** Thank you Debajyoti.





# QS World University Rankings by Subject 2022-Success of Jadavpur University Departments



**Q**S Ranking is an annual event published by Quacquarelli Symonds, a UK based company specializing in ranking the Higher Education Institutions. The ranking comprises four parts: global overall rankings, the subject ranking, and regional ranking for five independent regions - Asia, Latin America, Emerging Europe and Central Asia, the Arab region and BRICS, and Graduate Employability Ranking.

The QS subject ranking is conducted in five broad academic disciplines: Arts & Humanities, Engineering & Technology, Life Science & Medicine, Natural Science and Social Sciences & Management. Under each of the broad disciplines, institutes are further ranked under specific subjects. In total, 51 subjects are covered for ranking in the QS.

The subject ranking scores are computed based on surveying expert academics and global employers and measuring research performance in terms of citations and h-index. The research data is taken from the Elsevier's SCOPUS database. The weightage of different metric vary from subject

to subject. For example, in English, there is 80% weightage on academic reputation survey, 10% each on employer reputation and citation with no weightage on h-index. While in Mechanical Engineering, 40% weightage is on academic reputation, 30% on employer reputation, and 15% each on citation and h-index. The reputation survey is conducted by circulating questionnaire among a select group of academics and employers of repute who are registered in the database of QS.

Jadavpur University has featured among the top ranking institutes in several subjects in 2022 QS subject ranking. In the broad area of Arts and Humanities, Jadavpur University is within the top 401-450 rank band globally, which places the University as 5th among the Indian institutes featuring in the list. Subject-wise, Jadavpur University has been ranked in the 251-300 band in English (3rd in the country) and Pharmacy (11th in the country), 351-400 band in Chemical Engineering (13th in the country), 451-500 band in Mechanical Engineering (12th in the country), 451-500 band in Chemistry (13th in the country) and 551-600 band in Physics and Astronomy (17th in the country).

**IQAC approached the Head of the Department of English to share her experiences and the initiatives taken by her department which has placed the department at a leading position not only nationally but globally.**

## Success Story of the Department of English, Jadavpur University

By **Sonia Sahoo**, Professor and HOD, Department of English, JU

**T**he Department of English, Jadavpur University (<https://juenglish.org/>), has long been one of the leading English departments in not just India but all of South Asia. Recently, it was ranked 251-300 globally in the subject field. Within India, it was the only English department to qualify as a Centre of Advanced Study (CAS) under the UGC-SAP

programme, a distinction which it enjoyed uninterrupted from 2004. The work of its members have ranged from the Renaissance to the nineteenth and twentieth centuries, translation, the history of the book, literature and psychoanalysis, subaltern literatures and oratures, postcolonial literature, media, gender, travel, queer studies, popular litera-



ture, theatre studies, creative writing, digital humanities and disability studies. Its members have founded and run numerous schools and programmes in the university such as Cultural Texts and Records, Media, Communication and Culture, Radio JU, and Jadavpur University Press. The department also houses a Renaissance Resource Centre and the Centre for Victorian Studies.

The department has been extremely active in carrying out research both nationally and globally. Some of its key achievements are as follows:

- ▶ Part of Leverhulme Trust International Network on 'Commodities and Cultures in the Colonial World', 2009-11
- ▶ Declared a Centre of Excellence in Research in the RCUK (Research Councils UK) Arts and Hu-

manities Research Landscape in India Report in 2010

- ▶ Declared the National Nodal Centre for Translation into English by the Ministry of Culture's ILA Programme
- ▶ UKIERI Staff Exchange Award in 2011-12
- ▶ UGC-UKIERI Thematic Partnership Award, 2013-15, with the University of Liverpool, on 'Envisioning the Indian City'
- ▶ Student exchange programmes with the English Departments of Harvard University and Sorbonne University
- ▶ 'Shakespeare in Bengal' project under CAS II and III: <https://shakespeareinbengal.in/> and collaboration with Folger Shakespeare Library, Washington DC, from

2018

- ▶ 'Sustainable Heritage and Policy in Kolkata', with the University of Liverpool, 2019
- ▶ Five RUSA projects and seminars 2019-20

In 2003, the department switched to a semester system and completely overhauled its undergraduate and graduate syllabi. It was the pioneer in India in the teaching and research of a number of topics and areas such as graphic novels, queer studies, creative writing, science fiction, book history etc. The BA in English remains one of the most eagerly sought-after programmes in the country with an average of 4,000 students applying for 60-odd places. In another first, the MA programme was opened to graduates of all disciplines beyond humanities from 2017.

## FACULTY NEWS

### Invited Talks

- ▶ **Prof. Papita Das** delivered an invited talk at the short term online course sponsored by Atal Academy, Govt of India and organized by Department of Metallurgical Engineering, NIT-Durgapur on February 24, 2022.
- ▶ **Prof. Papita Das** delivered a keynote lecture in the International Conference on Promoting Environmental Technologies for Waste Management and Sustainable Development (WMSD-2021) organized by KIIT, Bhubaneswar on 12-13th December, 2021.
- ▶ **Prof. Kaustav Bakshi** delivered a public talk on "Rituparno Ghosh's Chitrangada and its Intertextual Conversations with Queer Histories of India" at Presidency University, Kolkata organised by Voyages in the Past and Hue-WoMan on 23 March 2022.

- ▶ **Prof. Kaustav Bakshi** delivered a lecture on 'The Queer Semiosis: Etymology, History, Politics' at the English Department Seminar Lecture Series, 2020-2021 at Ramjas College, Delhi University on 29th October 2021.

### Seminar

- ▶ **Automotive Embedded Systems** Electronics and Telecommunication Engineering Department

organized a one-day seminar on "**Automotive Embedded Systems**" at the Seminar Hall of the Dept. of ETCE on Feb. 26, 2022. The Seminar was inaugurated by Prof. Ananda Shankar Chowdhury, Head, Dept. of ETCE, JU. The experts discussed translation of technology from the campus to the industry. Special lectures were delivered on AES market and required skills, Need and Importance of Auto-



tive Electronics, AntiLock Braking Systems, Electronic Ignition System and ECU, Communication Protocols in automotive systems etc. The seminar was coordinated by Prof. P. Venkateswaran and Dr. Jaydev Bhaumik acted as Joint Coordinators.

- ▶ National Level Online Seminar called National Young Scholars' Meet: Philosophical Issues: Classical and Contemporary was held on 1-2 September, 2021 with Prof. Maushumi Guha, Prof. Preetam Ghoshal, and Prof. Gargi Goswami convenors of seminar.
- ▶ National Level Online Seminar called P.K. Sen Memorial Award Distribution Ceremony and World Philosophy Day Celebration: Values: Static or Dynamic was held on 5th January, 2022 with Prof. Aparajita Mukhopadhyaya, Prof. Preetam Ghoshal, and Prof. Rubai Saha convenors of seminar.
- ▶ Seven Day online Workshop on Buddhist Logic and Epistemology in Bauddha Tarkabhāṣā was held from 17th January to 24th January, 2022 with Prof. Madhumita Chattopadhyay, Prof. Maitreyee Datta, and Prof. Gargi Goswami convenors of seminar.

## Conference

- ▶ Prof. Kaustav Bakshi organized National Conference on “**Queering Political Assemblages 2.0: Queer Homing Desires**” held on 7-8 March 2022.
- ▶ Lopamudra Das, Sharwan Kumar, Varsha Singh, Uddeshya Gangwar, Sumit Gangwar, Dr. MS Karuna, Hiba Roshan Khan, Papita Das, and Avijit Bhowal attended “Synthesis and application of agro-waste derived nanocellulose/PVA hybrid hydrogel for treatment of textile dye containing waste water: Batch and Column study, ACMS -2022”, **an international conference on**

**advances in chemical and material science**, organised by IChE, held at the Heritage Institute of technology on 14-16th April, 2022.

## Workshop

- ▶ School of Women's Studies in collaboration with UGC-HRDC, JU organized an online workshop on **Gender Sensitization** titled, “Violence Against women: Family, Community and State” from 15th to 21st February, 2022.
- ▶ Prof. Kaustav Bakshi was selected by European University Institute, Florence, as the only Indian academic to present his work on gender and sexuality studies at Jadavpur University at their international workshop on ‘**Queer Pedagogies**’ held on 30-31 May 2022.
- ▶ Prof. Kaustav Bakshi organized Creative writing workshop for the students of the Department of English with Prof. Saikat Majumder, a novelist, critic and a professor of English and **Creative Writing** at Ashoka University on 7 June 2022.
- ▶ “**Arte Destacado**”, an art exhibition, was organised by the Jadavpur University Painting Club (Kokuyo Camlin) on 7-8 April, 2022. Around 50 members of the club participated in the event and showcased their outstanding talents through the exhibition. The exhibition was followed by workshops on “**Fluid Art**” and “**One Stroke Painting**” which was attended by around 50 enthusiasts.

## Paper Presented

- ▶ **Prof. Kaustav Bakshi** presented a paper entitled “Experiments with queer romantic songs in regional Indian cinema: Brajabuli as a medium of de-centring queer universalisms” at Queer Asia as Method: Roundtable and Townhall organized by Queer Asia in association with King's College, London and

University of Nottingham, 5-6 and 11-12 September, 2021.

- ▶ **Prof. Kaustav Bakshi** presented a paper entitled ‘Making sense of queerness before the advent of theory: Syed Mustafa Siraj's Maya Mridanga and its commonsensical philosophy of sexuality’ at the (online) conference “Queer Epistemicides: Languages, Knowledges, Sexualities” hosted by the University of St Andrews in collaboration with the Institute of Modern Languages Research (London) on April 29-30, 2021.

## Webinar

- ▶ **Ancient Indian Grammatical Tradition: Development and Excellence** Department of Sanskrit successfully organized a three-day national webinar from 19th to 21st January, 2022. The programme consisted of four Academic Sessions with Inaugural and Valedictory Sessions. There were also six paper presentation sessions, where 52(fifty-two) paper presenters were presented their valuable research papers. University teachers, college teachers and many researchers presented their research paper in the said programme.
- ▶ **Social Political Thought of Sri Aurobindo** The Centre for Sri Aurobindo Studies Dept. of Philosophy, JU organized the 37th Sri Aurobindo Annual Memorial Lecture on 21st March, 2022 to celebrate his 150th birth ceremony. The event was sponsored by Sri Samar Basu Endowment Fund. The memorial lecture was delivered by Professor Joy Sen Dept. of Architecture & Regional Planning and Chairperson of Centre of Excellence for Indian Knowledge System, IIT, Kharagpur on “Prelude to Sri Aurobindo: The Tale of His Radical Years”. Prof. Samantak Das, Pro Vice-Chancellor, JU presided over the programme.

# Management of Finance in acute dearth of resources in the State-aided Universities: Special reference to Jadavpur University

By **Gour Krishna Pattanayak**, F.O, Jadavpur University

**F**inancial health is an important consideration for quality education and research in a university and is accounted in all accreditation and ranking frameworks. The main sources of funding for the public Universities are the Government of India (GoI) funds and the state government funds, which consistently comprise around 90% of the total budget of the university. The state-aided universities are largely funded by the state governments; but they receive a large chunk of their Research and Development grants from the Central Government as well.

However, in the recent years, specifically after 2017, there has been a sharp decline in GoI funding. On the other hand, while the state fund towards salary head has remained assured, there is a huge deficit towards the fund for non-salary essential expenditure of the university, which is of the utmost importance to run the university smoothly. A decade ago, the average share of funding pattern of the total university budget was: State: 65%; GoI: 25% and own resources: 10%. But now the pattern has changed to: State: 85%; GoI: 10% and own resources: 5%.

A detailed analysis of the three components and their present status as given below depict a clear picture of the situation.

## GoI funds are shrinking:

Earlier the state Universities received the GoI funds mostly through the UGC. After the end of the 12th Plan Period in 2017, the “plan period” concept has been withdrawn and the UGC grants for the development of the state-aided universities have simply disappeared. There is no hope of any alternative in the near future. Moreover, as per GoI policy, we are required to pay interest to GoI for refund of any unspent amount; but the funds due [spent as per sanction and approval] from GoI agencies have amounted to around Rupees 10 Crores [under different projects/schemes, like UGC-FRP Scheme, UGC-HRDC scheme, UGC-SC/ST Coaching scheme, DST-PURSE & DST-Nano-mission projects and finally RUSA project]. This situation is affecting us adversely. The Prime Minister’s Research Fellowship (PMRF) 2020 has been advertised only for the IITs, IISERs, IISc, and the

Central Universities/NITs offering science and/or technology degrees which appear in the list of top 25 institutes in the NIRF ranking (overall) in the previous year. Unfortunately, it has excluded all the state-aided universities and institutes even with high rankings.

Jadavpur University was awarded a special fund of Rs.100 crores under the RUSA scheme [60% GOI & 40% State], as one among the few universities with a NAAC score above 3.5 in the 4-point scale. Although we got the first installment of Rs. 41.67 crores in 2019, the non-receipt of the second installment compelled us to stop the expenditure in 2021. The consequences have seriously affected the research activities in the universities. We have been attempting to realise the remaining funds for almost two years now. We have not been awarded the status of Institute of Eminence by the GoI [where the Budget was of Rs.650 Crores] although the Empowered Committee selected JU and as one of the top 10 awardees.

## GoWB funds

The funding for salary is ever-increasing and we are getting full support from the state government in the matter. But the non-salary funds are decreasing, and the same also applies for development grants. Moreover, the liabilities towards the contractual employees, part-time /special allowances and payments to the manpower agencies, where the total annual spending is more than Rs. 10 crores, are not covered under the Salary grants.

The non-salary grants released by the state government to support all other academic and administrative activities, are so paltry that this year it will be less than 50% of the fund requirement of JU. It is needless to mention here that we are not getting funds under this head, based on the report of the Review Committee constituted by the state government in 1994-95. It was then finalized that the annual requirement of Non-salary funds for JU would be Rs.4.625 crores in the year, with agreed enhancement of 10% annually. Based on the formula our agreed due grant would have been Rs. 64.00 Crores in the current year; whereas our allotment in the State Budget is Rs.24.99 Crores.



The development grants have also become stagnant and the grants under a few projects are also long overdue. As per the written commitment by the government in 2017, we had spent Rs.1.00 cores for the purchase of books; where the fund is due till date. No further fund has been granted by the government to purchase books till date. Thus, we are experiencing acute dearth of resources/facilities for academic development, and research infrastructure.

### OWN RESOURCES, INCLUDING FEES:

The last resort of funding is 'Resource generation'. Although we have

a few options, such as the university share of testing & consultancy, project overheads and other receipts, the growth of these is not very encouraging. The income from fees, which is presently the lowest across all the universities & institutes in the country, can be a powerful source of revenue because of its multiplier effect. However,

(i) The tuition fee has remained static since 2000, i.e. for the last 22 years. Now the income from the tuition fees of all the courses is less than 4% of our total budget; whereas the declared policy of the GoI recommends a recovery of 30% of the expenditure from

the fees.

(ii) The Hostel fee is Rs.25/- per month for the last fifty years; whereas the demand for comfort and luxury in the hostels are ever increasing. These demands include Internet and wifi connections, RO & cold water supply, kitchen support and many other facilities.

The following comparison will definitely advocate an enhancement of fees to a reasonable figure, to tide over the situation. Table 1 shows the almost static nature of the fees structure while Table 2 shows the increase in prices and salaries.

**Table 1: Fee structure over the years under tuition and hostel heads**

Parameters/per month	1970	1980	1990	2000	2010	2015	2020	2022
Tuition fees-Arts	15	15	15	75	75	75	75	75
Tuition fees-Science	15	15	15	150	150	150	150	150
Tuition fees-Engg	20	20	20	200	200	200	200	200
Hostel Fees (per month)	25	25	25	25	25	25	25	25

**Table 2: Increasing market prices and salaries**

Parameters/Data	1980	1990	2000	2010	2015	2020	2022
Salary of a Professor (pm)	2,000	5,000	20,000	50,000	70,000	1,50,000	1,70,000
Salary of HM in School	800	2,500	10,000	25,000	35,000	60,000	75,000
Salary of a bank officer	750	3,000	14,000	30,000	40,000	75,000	1,00,000
Price of gold/10 gram	1,500	3,200	4,400	18,500	26,000	48,000	52,000
Price of Silver/kg	2,500	6,000	7,500	27,000	37,000	41,000	55,000
1 US Dollar in rupee	8	17	44	45	65	75	79

The above tables signify the urgent need of review of the fees structure, where the basic rule of revision, inflation factors and market price rise should be taken into consideration. We are imparting education with the

lowest possible fees, where the very minimum compensation from individuals who are able to pay is also not taken. Such a paltry fee structure prompts the students neither to get actively involved in their classes, nor

feel involved in the wellbeing of the university. If this scenario continues, then a day will come when we can't go for any up-gradation/ or purchase new equipment, or to keep pace with the technological advancements.

**Table 3: NIRF Rankings in overall category**

State-aided University	2022	2021	2020	2019	2018
Jadavpur University	12	14	12	13	13
Calcutta University	15	11	11	12	21
Savitribai Phule Pune University	25	20	19	17	16
Anna University	22	25	20	14	10
Bharathiar University	24	22	21	21	20

The following information is worth consideration in this context; where the NIRF ranks of top state universities are better than all but seven top IITs and all the IISERs in each of the last three NIRF rankings. IIT Dharwad, IIT Jammu, IIT Goa, IIT Bhilai, IIT Tirupati, IIT Palakkad did not feature in the list of top 100 institutions (overall) in last three years.

The cost of investment /spending per Teacher is the lowest among the state universities; it's not at all comparable with the figures of IITs & NITs. Even, the spending level of central universities is also much higher than the possible spending by state universities like us.

The income from research funding and sponsored projects is declining sharply; with the number of projects shrinking and the overheads on all such projects reduced drastically. The other change in the funding pattern

is the introduction of TSA [Treasury Single Account] and SNA [Single Nodal Account] concepts of fund release by all the GoI agencies. With these, the funds will not be paid directly to our bank account, but will remain in the TSA & SNA accounts of the respective funding agencies. Thus, the actual fund control will be done by them, and we would have no flexibility or scope to spend beyond the stipulated time-frame. We have to prepare ourselves for the new regime, or else we will be in real trouble.

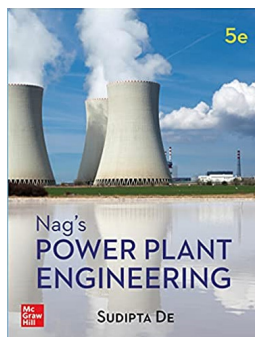
If we cannot provide funds for research and laboratories of latest technologies or for the basic requirements for augmentation of academics and research; then how can we expect our ranking to improve?

We have moved up in the NIRF Ranking 2022. Such a high rank with so inadequate funding for research and other infrastructure is really com-

mendable and is a testament to the dedication, devotion and sincerity of a large number of teachers, researchers, students, officers and the entire university community. We can achieve an even higher place if we can get at least the funding of the previous decade. To plan and proceed further in the rankings, we have to ensure more funds to run the system smoothly and effectively.

It is high time for us to awake and think and plan for the future, so that we can develop a proper system of funds flow for our existence. All of the stakeholders of the university, including teachers and students across the faculties, as well as the administrators should come together and discuss in detail to find out a unified long-term strategy to overcome this crisis if we want to maintain the glory of our university.

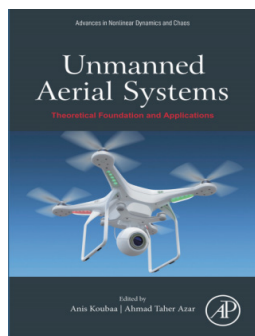
## Faculty Publications



- Prof. Sudipta De (2021): *Nag's Power Plant Engineering*, 5th Ed. McGraw Hill Education, (ISBN-13: 978-93-5460-005-0; ISBN-10: 93-5460-005-0), Published on 7th July 2021.



- Dr. Saptarshi Chatterjee, Dr. Debangshu Dey and Prof. Sugata Munshi published a book, titled *Recent Trends in Computer-aided Diagnostic Systems for Skin Diseases-Theory, Implementation, and Analysis*. Academic Press, Elsevier, ISBN: 9780323912112, 2021.



- *Unmanned Aerial Systems: Theoretical Foundation and Application*, Elsevier Publication, ISBN: 978-0-12-820276-0, Edited by Anis Koubaa, Ahmad Taher Azar.

# EVENTS

January, 2022 - May, 2022

## MOTORA '22



Jadavpur University Motorsports Club organized “MOTORA '22” in two sessions. During the first session on 9th April, 2022, Mr. Manoj Kumar Singh, Senior Manager, Mahindra gave a basic insight on the Supply Chain of the Automotive Industries of India. He gave a detailed real life examples regarding the current scenario of the production Industries in this sector. In the second session on 20th April, 2022, Mr. Debajyoti Roy, Associate Partner, Bain & Co., joined in an interactive session to share his experience in the field of consultancy. He gave an idea about the corporate world and discussed how the students should build themselves for the future.

## TERRATALES 2022



AAPG-SEG-SPG India Student Chapters of Department of Geological Sciences conducted Photography, Painting, Creative Writing, Poster Presentation and Elocution Competition on 22nd April, 2022. 44 participants joined this event.

## Poverty Traps

Professor Abhijit Binayak Banerjee, Nobel laureate and the Ford Foundation International Professor of Economics at the Massachusetts Institute of Technology, delivered (online) the 30th Panchanan Chakraborty Prabhat Sarbadhikari memorial lecture on “Poverty Traps” organized by the Department of Economics, JU on 25th March 2022. Honourable Vice Chancellor, JU, Professor Suranjan Das, delivered the Welcome address. The session was chaired by Professor Sushil Kr. Halder, HoD Economics. The number of participants was 380.

## XXI Sukhalata Rao Memorial Lecture

School of Women's Studies, JU successfully organized an online XXI Sukhalata Rao Memorial Lecture on 15 February, 2022. This memorial lecture was delivered by Professor Srimati Basu from the University of Kentucky, USA on “Feminists, Antifeminists and the End(s) of Marriage” and chaired by Professor Rajni Palriwala, Delhi University.

## Symposium

Fight for rights of Bengali Muslim women in post-Partition Era

School of Women's Studies in collaboration with International Society of Bengal Studies, Department of Anthropology, Jahangirnagar University, Department of Sociology and Gender Studies, Central Women's University, Dhaka organized International Web Symposium from 1st to 3rd April, 2022. This web symposium had speakers from academic institutions in India and Bangladesh such as Jadavpur University, University of Calcutta, Aliah University, Diamond Harbour Women's University, Delhi University, University of Assam, JNU, Jahangirnagar University, University of Dhaka, Central Women's University, Dhaka, etc.



# Jadavpur University students attract top Global Companies for Recruitment

By **Debarati Sinha Chaudhuri** and **Moumita Ghosh**

A farmer's son from Rampurhat is ready to fly to London and join the global technology giant *Facebook* with a salary package of nearly rupees two crores. Another youngster from a remote place of Nadia is also preparing to shift his base to London drawing more than one-crore salary. There are some others achieving similar accomplishments and looking forward to go to places like Berlin or Dublin to be part of the leading multinational companies of the world. The common thread among them is that they are all from Jadavpur University. A total of ten final year engineering students of the 2021-22 batch are upholding the eminence of Jadavpur University by bagging their first jobs with salary offers above or around one-crore rupees. Such an achievement is for the first time in the history of Jadavpur University and the entire University feels proud of it.

Placement of engineering students of Jadavpur University remains good due to the top-class merit of the students, excellent teaching-learning methodology and participation of the placement cell. However, the global penetration achieved this year is more due to the individual efforts of the students who have chased their dreams with commitment and zeal.

Bisakh Mondal, a student of the Department of Computer Science and Engineering, explained to IQAC over the phone: "I targeted such global jobs when I was in the second year. I prepared myself by learning different computer languages and various cutting edge topics of computer science



and technology. I was a regular contributor to the *Google Summer of Code* (GSoC) and participated in the development of open source software. I also did an internship in *DE Shaw & Co.*, where I experienced some of the most challenging and interesting problems. The lockdown period helped me in undertaking these activities. All these contributed in getting the big offers for me." Now, Bisakh has two huge offers from the London offices of *Facebook* and *Google*. He exclaimed, "When the interview of *Google* was going on, *Facebook* reached out to me and asked me whether I am willing to face an interview with them. I am really happy that I could crack both the interviews. I am now somewhat confused to choose one, as both the offers are extremely attractive to me."

Along with Bisakh, *Google* has also selected Debarshi Maitra, a student of the Department of Production Engineering, as a software engineer for

their London office. Debarshi's core interest in mathematics has driven him into computer science and he started preparing software coding on his own. Debarshi told IQAC, "I realized that to get a high-value job in the present market I have to excel in software coding. I practiced on my own since I was in my second year. Apart from the subjects of my discipline, I prepared myself on a regular basis with the help of *GeeksforGeeks* website, which I found to be really helpful for learning Data structures and algorithms. I also did an internship on software engineering in a reputed company. All these made my resume strong." Debarshi sent his resume to *Google-London*. "In order to prepare myself for the interviews I participated in the international competitions of programming and coding, like *CodeChef*, *Codeforces* etc. I secured very good ranks in these competitions which helped me to crack the inter-

view of Google. I am now very much confident that I will be able to flourish in the computer software area.”

Rupayan Ghosh of Information Technology Department and Satyam Kumar of Department of Computer Science and Engineering have got offer letters from Amazon, Dublin, while Subham Kumar Mondal of the latter department has bagged the offer from Amazon, Berlin.

How should juniors prepare themselves for such coveted jobs? All the six achievers are unanimous in their suggestions. “Try to learn the computer fundamentals during the first year. From the second year onwards you explore each and every domain of computer science and engineering. Then, fix your preferred domain and try to be the best performer in that domain through hard labour.” Debarshi further advocates saying, “Prepare yourselves with the websites which I have followed. Without neglecting

your regular studies you can join the internships as you may avail them from home. Try to participate in the international competitions of coding. It will help you to shape your resume as different from that of the others.”

Debarshi, Bisakh and others also appeal to the University authorities to consider giving NOCs to the students for joining the internships if it does not have conflict with the regular classes. Debarshi’s open confession is “only the summer internship does not fulfill all the requirements. In order to compete in the international job market the students have to acquire the skill and efficiency of the international level. We need support and help from the University for achieving it.” Bisakh also points towards value addition of the interested students through additional courses and training on computer programming and coding so as to enable them participating in coding competitions and giving them

confidence for joining the internships. Satyam further requests the University to invite International companies to the campus for placement interviews.

Though the students agree to the fact that the lockdown of the last two years helped them in learning and practicing the subjects of their choice, all of them choose offline education as the preferred mode for the curriculum. Bisakh confessed, “We could rarely interact with the teachers during the last two years due to lockdown. So, we had to practice rigorously at home. We often did not get the opportunity to consult our teachers or seniors in case of doubts. Moreover, for laboratories and practicals physical classes are a must”. However, all the students agree that to succeed in interviews of Google, Facebook, Amazon or other world-class companies, additional preparation outside the curriculum will be required.

## START-UP ACTIVITY

► **‘Royal Bengal Greentech Private Limited’**, a startup initiative by JU alumni Pallavi Luharka, (Chemical Engineering, 2012) has been recognized under the Start-up India initiative of the Govt. of India and as a recognized MSME by Udhyaam. The startup focuses on driving sustainability with a mission to develop and provide innovative process solutions to make green technology more accessible and affordable through waste

management, energy conservation, circularity and zero-discharge initiatives. They are working with various multifunctional departments of Jadavpur University. The Department of Chemical Engineering at JU has already commenced a proof-of-concept for joint development of sustainable technology solutions, aligned with their vision.

► **‘Whixic Technologies Private Limited’**, the startup initiative by Arghadeep Sadhu, Sk Shah Nawaz

(Computer Science and Engineering Department UG 4), and Pranay Kedia (Chemical, UG 3) have made significant progress in developing WRITEE(writee.in). Writee is an AI-based copywriting firm, which can create customised, engaging content for business—whether it’s website copy, social media posts, or even email marketing campaigns. The company has been recognized as a “Start-up India” initiative.





# Students Corner

## Awards and Achievements

- **Sagnik Sarkar, Srinjoy Das and Hritajit Pal**, third year students of Mechanical Engineering emerged as the winners at the Hero Campus Challenge Season 7, an initiative by Hero MotoCorp Limited, by working on Hero's real engineering and business challenges.
- **Sagnik Sarkar, Shirsa Nandy, Anwesha Das and Niloy Sen**, third year students of Mechanical Engineering Department, emerged as the National Runner up at the ISHRAE HVAC&R Hackathon 2022. They proposed a unique solution towards the advancement of the cold chain industry here in India via the fabrication and application of Portable evaporative air coolers implementing indirect cooling.



ISHRAE HVAC & R Hackathon 2022 Winner Certificate. The certificate is awarded to the team of Sagnik Sarkar, Shirsa Nandy, Anwesha Das, and Niloy Sen from Jadavpur University. They are the 1st Runner up with a cash prize of ₹75,000 and publications. The certificate also mentions the 2nd Runner up with a cash prize of ₹25,000 and publications. The title of their project is 'Low Cost Cooling Solutions for Vegetable Vendors'. The certificate is signed by the ISHRAE Kolkata Chapter.



- **Sagnik Sarkar** (Mechanical Engineering), **Samriddhi Ganguly** (Production Engineering), **Srinjoy Das** (Mechanical Engineering), **S K Shahnawaz** (Computer science and engineering), and **Arpan Mukherjee** (Electronics and Instrumentation Engineering), third year students of the University, emerged as the National Winner of the ZS Campus Beats Case Challenge '22, organized by ZS Associates.
- **Sagnik Sarkar** a third year student of Mechanical Engineering has managed to feature in the Forbes India Magazine, April 2022 edition (page 32) as the 4th most Competitive E-School Leader in the country, under the D2C Awards 2022 (D2C Competitive Leaders) Section.

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- **Shreya Das**, PhD scholar of the Department of Life Science and Biotechnology received the 2nd prize for best poster presentation in the 6th International Anatomical Sciences and Cell Biology Conference (IASCBC), 2022, organized by National University of Singapore for her poster entitled "Role of cardiac transcription factor Tbx20 and Bmp2 signalling in regulating cardiac remodelling post Endoplasmic stress (ER) induced cardiomyopathy."
- Nine of students of UG- Final Year of the Department of Geological Science have secured ranks within the top twenty (1, 2, 4, 5, 9, 11, 14, 17 and 20) in the All India IIT-JAM-2022 Examinations.
- **Aindrila Choudhury** of School of Women Studies has secured admission as a PhD student in the University of Virginia (QS 2023 Rank 253).
- **Swarnendu Mandal** a MSc. 1st Year student of Applied Geology is a rising Sarod player in India. Being trained by Pandit Pranab Naha, Padmabhushan Pandit Buddhadev Dasgupta and Ustad Abir Hussain Swarnendu is B+ grade artist of All India Radio and Doordarshan. Recently he has performed for the Italian Consulate General in Kolkata and Bhubaneswar, at the prestigious ITC Sangeet Sammelan and also performed for the Railway Ministry in the presence of honorable Railway minister and many sports personnel who bagged medals for India from the last Olympiad.

## Sports News

### Table-Tennis (W) Tournament

- JU Women Table Tennis Team has won the \*Championship Trophy\* of the AIU East Zone Inter-University Table Tennis (W) Tournament 2021-22 held on 23-25 February, 2022 at L.N.Mithila University, Darbhanga. **Surbhi Patwari, Neha Kumari, Sudarshana Patra, Sreetama Biswas** represented Jadavpur University.

### American Football (W) Tournament

- JU Women American Football Team (Flag Version) brought \*Bronze Medal\* from the AIU All India Inter-University American Football (W) Tournament 2021-22 held on 22-27 February, 2022 at Poornima University, Jaipur. **Sonia Gurung** (UG-3, IR) was adjudged as



the Best Kicker of the tournament.

### Rowing (W) Championship

- **Shweta Brahmachari** of School of Linguistics won a \*Gold Medal\* in the 2 km Single Scull event and a \*Silver Medal\* in 500 m. Single Scull event in the AIU All India Inter-University Rowing (W) Championship 2021-22 held on 1-5 March, 2022 at Panjab University, Chandigarh.

### Karate (W) Champions

- **Debnjali Karmakar** (UG-2, Bengali) grabbed a \*Bronze Medal\* in the Female Individual Kata Category in the 'AIU All India Inter-University Karate (W) Championship 2021-2022' held on 14-17 March, 2022, at Kurukshetra University, Haryana.

### Grappling (W) Championship

- **Madhabi Halder** (UG-2, Bengali) bagged one \*Silver medal\* and **Chumki Sarkar** (UG-3, IR), one \*Bronze Medal\* in the event of Gi (U-66 kg) & NoGi (U-62 kg) style respectively in the 'AIU All India Inter-University Grappling (W) Championship 2021-2022' held from 31 March to 4th April, 2022 at M.D. University, Rohtak (Haryana).

### Khelo - India University Games (KIUG)

- Jadavpur University Women Swimming team bagged a total of 2 Golds, 3 Silvers & 2 Bronze medals, a record in JU history. **Shristi Upadhyaya** (UG-II, Comparative Lit.) brought 4 medals (1 Gold with new KIUG record, 1 Silver & 2 Bronzes) in individual category and won 3 medals (1 Gold with new KIUG record & 2 Silvers) in team category and became the first swimmer in JU to collect a total 7 medals. The Khelo India University Games 2021 was held from 24th April to 3rd May, 2022 at Jain University, Bangalore, Karnataka.

### Netaji Subhas State Games

- **Shristi Upadhyay** (UG-II, Comparative Literature) won Gold med-



al in 50m Freestyle event and two Silver medals in the 50m & 100m Butterfly events in Swimming at the 8th Netaji Subhas State Games - 2022 organized by Bengal Olympic Association in collaboration with MAKAUT, WB on 13-16 May, 2022.

- **Neha Shaw** of School of Languages and Linguistics, was adjudged as the 'Bengal Champion' in Boxing Women individual under 52 kg category at the 8th Netaji Subhas State Games - 2022.

### East India Karate Championship

- **Debanjali Karmakar** (UG-2, Bengali) won one Gold in U-21 Yrs. Female Kata category & two Silver Medals in Senior Female Individual & Jean Kata category in Karate in the '2nd East India Karate Championship' organized by East India Karate Association under the care

of Karate India Organization held from 20 to 22 May, 2022 at Utkal Karate School, Bhubaneswar.

### Other Activities:

- An Online competition IIT BHU Model United Nations (MUN) 2022 was held from 3rd to 5th March, 2022. A total of 15 participants took part in this competition. Best Delegation Award went to Jadavpur University. **Tanushka Mondal**, (UG, Comparative Literature); **Shourjya Samanta**, (UG, Economics); **Ayman Haque**, (UG, Economics) brought 1st prize, **Debottama Ganguly**, (UG, History); **Ruyoaz Bhadra**, (UG, Architecture Engg.); **Asmita Roy**, (UG, Philosophy) brought 2nd prize and **Sanjana Ghosh**, (UG, IR); **Aaditya Chowdhury**, (UG); **Ankit Kumar Singh**, (UG, History); **Aishiki Chowdhury**, (UG, IR) won the 3rd prize.
- An online SOPHIA MUN 2022 competition was held from 23rd to 25th February, 2022. **Harshil Sharma**, **Aaditya Chowdhury** brought 1st prize and **Kamalika Das**, **Ankit Kumar Singh** brought 2nd prize.
- UEM MUN 2022 Kolkata was held from 17th to 19th April, 2022. **Sayak Dasgupta**, **Rupaz Bhadra** brought 1st prize to Jadavpur University.
- An Online competition eMUN-2021 at Kalinga Institute of Technology (KIIT) was held from 21st to 23rd December, 2021. Best Delegation Award was won by the Jadavpur University team. **Sourjya Samanta**, **Adway Pual**, **Asmita Roy** brought 1st Prize for Best Delegation, **Harshil Sharma**, **Diptangshu Chanda**, **Mehedi Hassan**, **Sanjana Ghosh** brought 2nd Prize for High Commendation and **Sayak Dasgupta**, **Trishaw Das**, **Priyanka Bhowmik**, **Ankit Kumar Singh**, **Sohini Banerjee** brought 3rd Prize for Special Mention.

# Success Stories

## ☞ Harvesting water from Cooling Tower Fog—each drop counts

In the present era, of global fresh water scarcity, different countries and international bodies are heavily promoting the practice of water conservation. Wet type cooling towers in power plants are always under the scanners of environmentalists and regulatory authorities for their colossal water footprint. Ritwick Ghosh, doctoral student of Prof. Ranjan Ganguly at the **Power Engineering Department** carried out a pilot study in 2015, where he intercepted the fog plume arising out of cooling tower of a 500 MWe power plant by installing small fixtures of stainless-steel meshes and captured a small fraction of the fog water (Figure 1(a)). The study showed significant potential for saving water and received international recognition at the 3rd Indian-Ger-

man Water Partnership Day, Kochi, India. The concept was pitched at the IESS VII, International Engineering Sourcing Show (2018) in Chennai, attracting significant industrial interest. Prof. Ganguly's research group is working on perfecting the physical design of the mesh and its surface wettability to make it industry-ready. They secured funding from the SERB-Core Research Grant in 2020, allowing them to develop a more realistic cooling tower test rig for detailed parametric studies, and conduct further in-depth research over the last year. They have published in high impact international journals (like *Energy*) and been recognised at conferences and meetings for their work.

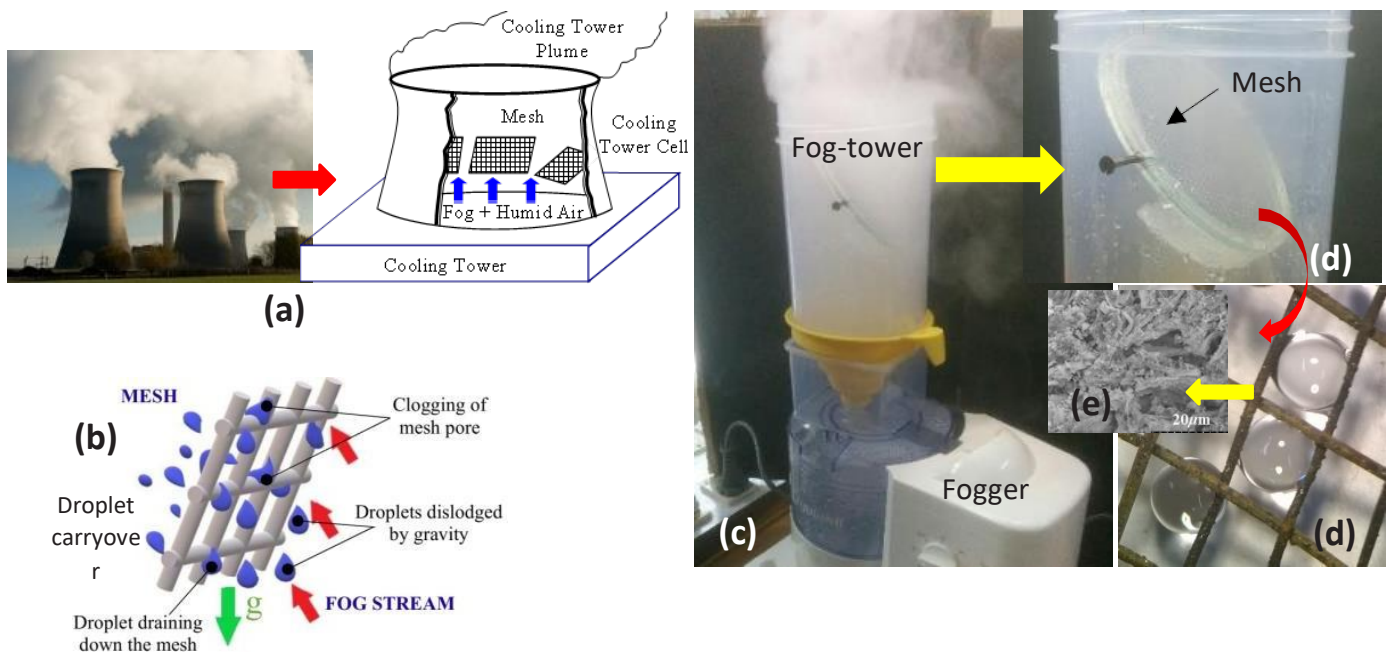


Figure 1.(a) Cooling tower cell and fog net; (b) Different avenues of drainage loss of collected fog-water from the mesh fiber (c) Laboratory-scale for tunnel assembly; (d) The fog-net; (e) Droplet behavior on a superhydrophobic fog-net, (f) SEM image of the mesh surface.

## ☞ A Novel Self-powered Triboelectric Mask

An electronic mask was invented and prototyped by Prof. Bipan Tudu, Prof. Rajib Bandyopadhyay, and a team of researchers from the **Department of Instrumentation and Electronics Engineering** along with a scientist of the Insti-

tute of Nano Sciences and Technology, Mohali during the Covid-19 pandemic. The mask comprises of three layers. The first two (inner and middle) form the triboelectric layer (TL) and are made of materials from two extreme ends



of a tribo-electric series of materials (TSM) so as to generate sufficient static electricity due to the friction between these two layers (Figure 2). The outer part of the mask utilises this triboelectric energy by forming an electrically active mesh that has the capability to inactivate the incoming SARS-CoV-2 virus. The novelty of this design lies in the self-activation of the electrocution

layer (EL) during the breathing cycle of the wearer. It has provisions to deal with aerosols as well as droplets (gaseous, liquid). Wearers experience no internal respiratory problems as there are sufficient porosities in the TLs. A patent was filed (Application No. 202031025622) and a paper was published in a high impact journal, *Nano Energy*. The research team collaborat-

ed with E-mask LLP—a startup based in Houston, USA—to further improve the design. The Indian patent was extended for global use via PCT (application number: PCT/US21/32787). Final tests are in progress and manufacturing is expected to start once FDA approval and the patent are granted.

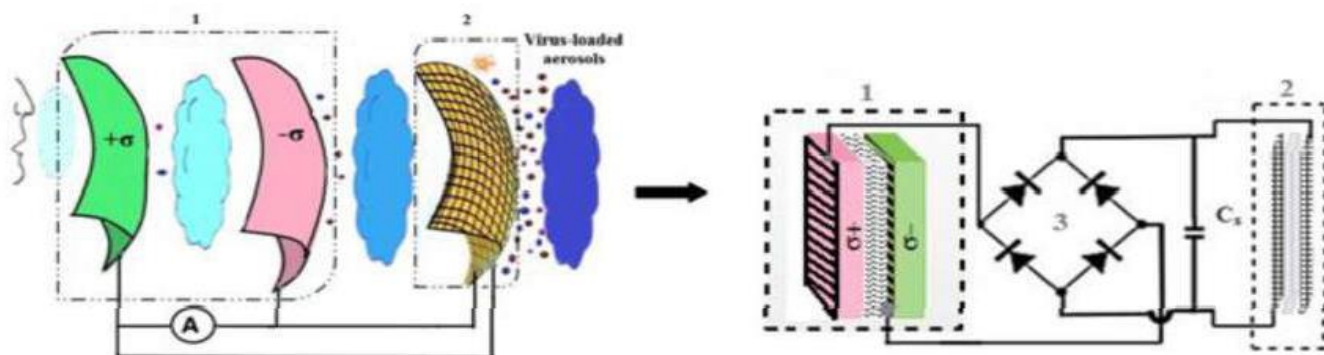


Figure 2. Schematic representation of the mechanism of the present invention

## ✂ Designing a Botanical Biofilter for Bioremediation of Atmospheric Particulate Matter and Heavy Metals

Dr. Reshmi Das and her doctoral student Iravati Ray from the **School of Environmental Studies** are conducting a study to identify epiphytes (primarily ferns) native to Kolkata that efficiently absorb and retain atmospheric particulate matter (PM) and heavy metals. Once the species is identified, an indoor botanical biofiltration system

will be designed with ferns capable of filtering atmospheric PM and carcinogenic metals like Pb, Ni, As, Cd and Cr. This optimally designed system will be implemented in a bioremediation pilot study in test rooms at pollution hotspots in Kolkata. The goal here is to design air filtration units that can be installed in indoor spaces

and increase their greenery, while working as natural air purification systems (Figure 3). The project was awarded by the Department of Environment, Government of West Bengal (File No. ENV-29014(11)/1/2022-ACS (ENV)-Dept. of ENV) under the State Development Scheme in February of 2022.

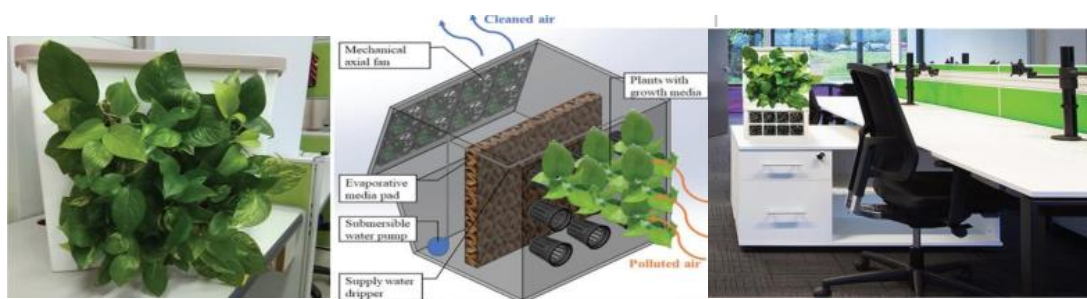


Figure 3. A table-top botanical biofiltration unit, the design, and installation space. (Modified after Ibrahim et al., 2019).

## ✂ Participation in the ALICE Experiment at CERN (European Organization for Nuclear Research)

The High Energy Physics Group from the **Department of Physics**—comprising of Prof. Argha Deb, Prof. Mitali Mondal, one Post-Doctoral Fellow, and two PhD students—has been awarded Associate Membership status

of the ALICE-INDIA Collaboration and subsequently of the CERN-ALICE Collaboration and received a grant of Rs. 1.115 crores. The group is therefore taking part in the RUN 3 experiment being carried out at the Large Hadron

Collider (LHC) at Geneva. They are effectively contributing to both data analysis and detector development to this novel study of particle physics.



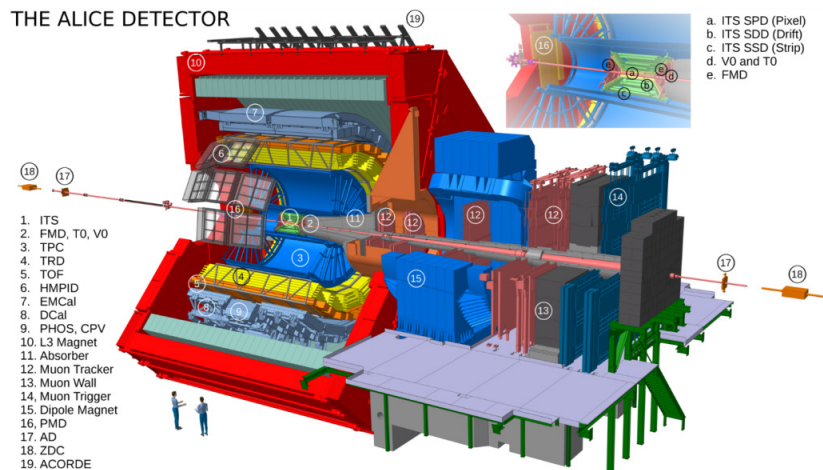


Figure 4. Cut-away view of ALICE depicting the 18 detectors of the experiment.

## Publications winning accolades and grants in Press' tenth year

Jadavpur University Press (Publications) received two nominations in the 2021 edition of the Publishing Next awards (announced Sunday March 27, 2022), which recognise excellence in the Indian publishing industry. This marked the second year that a JUP title has been nominated for the prestigious awards. *Biplabi Rasbehari Basu O Japan* [Takeshi Nakajima, trans. Kazuhiro Watanabe] went on to win 'Printed Book of the Year (Indian languages)'. The other nomination was received by *Chaiwaad* [Kakuzo Okakura, trans. Lav Kanoi, cover Sanjukta Roy] for the category 'Book Cover (Indian languages)'. This is the first major industry award that the JUP has received for its publications. *Chaiwaad* was also longlisted for the '7th Oxford

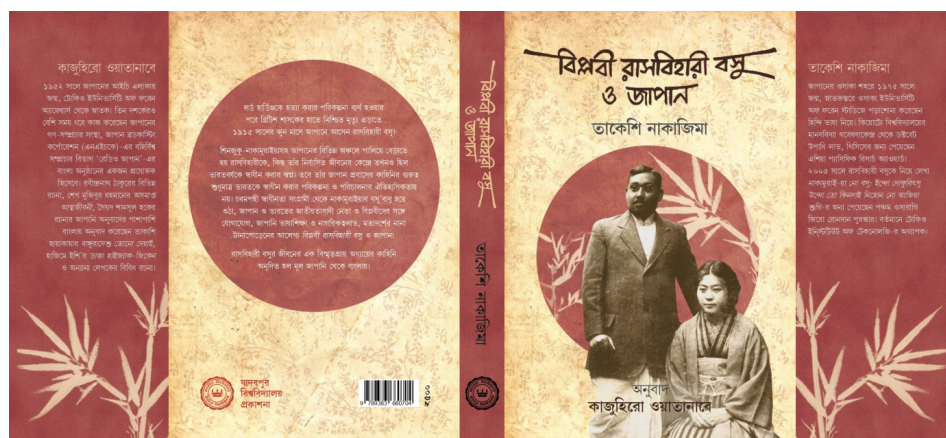


Figure 5. *Biplabi Rasbehari Basu O Japan* by Takeshi Nakajima, translated by Kazuhiro Watanabe.

Bookstore Book Cover Prize' in 2022. The Press has also received publication grants from international bodies like the Japan Foundation, Camões IP

and DGLAB, Institut Français, and Goethe-Institut this year.

## Drone Embedded Microphone Array-based Search and Rescue Operations using Sound Source Localisation

Unmanned aerial vehicles are important in disaster management as they are deployed by emergency services and rescue teams for cost-effective and time-efficient search and rescue operations. All drone-based search operations to date either have used vision-based drones or require direct human assistance along with the drone. During low or negligible light conditions, including foggy weather, it becomes nearly impossible for such drones to function. Prof. P. Ven-



Figure 6.

kateswaran of the Department of Electronics and Telecommunication Engineering and his team have pro-

posed an alternative approach using acoustic source localisation. During the search operation, the sound source is the victim, screaming for help. The signal emitted by the source will be recorded using an array of microphones embedded in the drone structure. This is an innovative way to analyse captured audio signals for accurate source localisation. The project was sponsored by We Robotics, USA with a grant of USD 15,000.

## Biomedical Image Processing employing Deep Learning for Skin Lesion Diagnosis

Computer-aided diagnosis (CAD) has made a significant breakthrough in skin lesion diagnosis employing deep

learning (DL) frameworks over the years. But it hardly reveals the transparency of the DL architecture. To

mitigate this issue, Biswarup Ganguly, Dr. Debangshu Dey and Prof. Sugata Munshi of the **Electrical Engineering Department** have developed an image visibility filter (IVF) based DL framework for skin lesion diagnosis. This IVF-DL network employs visibility patches extracted from the image visibility graph which are then used as kernels to extract salient features from dermoscopic images. The outcome not only classifies skin lesions but also depicts the interpretable results in a supervised manner. The research was published in the *IEEE Transactions on Industrial Informatics*.

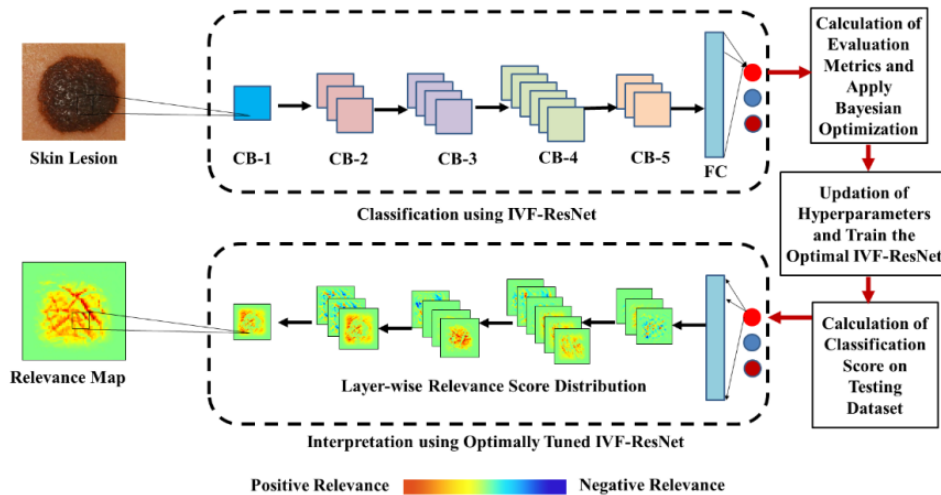


Figure 7. Schematic of the developed optimally tuned IVF-ResNet for skin lesion classification and interpretation.

## Achievements of the ISHRAE Jadavpur University Students' Chapter

ISHRAE Jadavpur University Students' Chapter was founded with the vision that learning outside the classroom is as important as curricular studies. This is an initiative by the students of the **Mechanical Engineering Department** that provides a platform to students through interactive and competitive events. These events involve experts, alumni, and teachers, giving students a wide opportunity for academic and overall development. Members were awarded the 1st Runners-up position in the Best Student Chapter Award Category consecutively for the second time this year in 2022. They were also declared the Zonal Winners of the East Zone, along with winning 1st Runners-up of ISHRAE HVAC & R HACKATHON National Finals, 2021-22. In the Na-



tional Student Design Competition (NSDC), HVAC system design competition the Chapter bagged the 1st prize at the national level in 2021-22 along with 3 teams getting shortlisted for Zonals. One of the teams also won

a major research grant by winning the ISPG competition (Grant in Aid for the Final Year Students for Project Research in HVAC & R).



# INSTITUTE NEWS

## IN FOCUS

### Awards

Jadavpur University was awarded the 'District Green Champion Awards 2021-2022' at Committee Room No- I, Jadavpur University on 29th April, 2022. The award was



given by Mahatma Gandhi National Council of Rural Education, Department of Higher Education, Ministry of Human Resource Development, Government of India.



### Institutional Repository on DSpace Software

The Central Library has taken an initiative to develop an Institutional Repository on DSpace. The main objective is to create and develop an archive of the University's own resources for sustainable use. The resources may be maintained in the institutional repository in Text file format (as PDF), Audio, and Video files. In order to build the Reposi-

tory (named as IR@JU) the DSpace software 6.3 version has been installed and is being maintained on the cloud server. The communities and sub-communities have been created. The work of developing the collections along with specific metadata is going on.

### Research on questioning the fitness for purpose of Higher Education Institutions

Drawing from the RUSA 2.0 research grant of Jadavpur University, Dr Nandita Banerjee Dhawan in collaboration with Dr Dina Belluigi, Belfast University and Dr Grace Idahosa, University of Johannesburg have undertaken research on questioning the fitness for purpose of Higher Education Institutions to drive substantive change in the interests of

the common good. The researchers analyse how these institutions address within their praxes the goals they are mandated to drive, specifically addressing gender inequality (SDG 5), reducing inequalities (SDG 10), and offering access to quality education (SDG 4) as strong institutions of peace and justice (SDG 16).

### Refresher Course

Department of Sanskrit with UGC- Human Resource Development Centre, Jadavpur University organized a 12-day Online Refresher course on Sanskrit Literature: An Ocean of Eternal Wisdom from 1st to 15th February, 2022.

The programme was coordinated by Prof. Ashok Kumar Mahata & Prof. Shiuli Basu, Department of Sanskrit, Jadavpur University.

### Student Internship Programme

Central Library organized the 5th Internship Training Programme for the students of MLISc and MLISc (Digital Library) of the Dept. of Library and Information Science, J.U. from December 2021 to May 2022. Eleven students completed the Internship Programme.



# NATIONAL SERVICE SCHEME (NSS)

## Major Achievements

- ▶ NSS Volunteers from Jadavpur University viz. Bikash Chandra Ghorai (Education), Tinni Mandal (Sociology), Sumanta Pramanik (Philosophy), Toydul Islam Molla (International Relations), Mimi Mandal (Bengali), Subhadip Mandal (Bengali), and Koushik Palui (Education) were awarded for being State Level best NSS volunteers from Govt. of West Bengal at Ramakrishna Mission Vidya Mandir, Belur, Howrah on 7th January, 2022.
- ▶ NSS, Jadavpur University received The West Bengal State NSS Award for best University category from Govt. of West Bengal at Ramakrishna Mission, Belur Math, Howrah on 7th January, 2022.



- ▶ NSS Volunteers from Jadavpur University viz. Mr. Debabrata Mandal (Sanskrit), Mr. Tanumoy Adhikari (Physical Education), and Kajal Kumari Adhikari (Physical Education) were selected for East Zone Pre-Republic Day Camp at Central Institute of Technology (CIT), Kokrajhar, Assam from 25th October to 3rd November, 2021.



- ▶ NSS, Jadavpur University organized various awareness activities on COVID-19, through generation of public awareness, distribution of leaflet, masks, sanitizers and soaps and displaying posters in the pandemic situation. NSS-JU had also organized International level seminar on the topic “Coexisting with COVID-19”. The NSS also organized few Health awareness and Telemedicine service (Free consultation with doctor by telephone or vid-

eo call) in association with Aim Foundation (NGO) and distributed Rice, Daal, Potato, Onion, Soybean, Mustard oil, Salt, Turmeric powder, Jeera Powder etc. among the needy on a regular basis, benefiting for more than 3000 people.



- ▶ Nehru Yuva Kendra Sanghatan, West Bengal and NSS, Jadavpur University jointly organized a “Declamation Contest”. NSS Volunteer Ms. Ditsa Roy, Department of International Relations (UG-II) got 1st Position on the “State Level Declamation Contest on “Patriotism and Nation Building” on 30th November, 2021 at Mrinmoyee Madhusudan Memorial Hall, Jadavpur University.



- ▶ National Service Scheme(NSS), Jadavpur University organized a Relief Camp on 3-14 June, 2021 and 24 June, 2021 at Yash Cyclone affected areas of Sundarban (Kumirmari, Gosaba and Patibunia, Namkhana), South 24 Parganas in collaboration with the voluntary organization Aikataan. In this special programme the following activities were taken up:
- ▶ Food distribution: dry food packets and regular Lunch & Dinner distribution to 500 villagers for 12 days.
- ▶ Regularly spreading lime and bleaching powder at said affected areas.
- ▶ General health checkup programme with free medicines.
- ▶ Mangrove tree plantation.





- ▶ National Service Scheme(NSS), Jadavpur University organized a Relief Camp on 22-23 September, 2021 at flood affected areas of Medinipur (Manikara, Sansahara, Eral, Nowgan, Choukuri, Andulia, Kraroda, Sarta, Malpar, Nandapura, Kolonda, Raodhraberi in collaboration with the voluntary organization Aikataan. In this special programme the following activities taken up:
- ▶ Distribution of Dry foods, Rice, Daal, Potato, Onion, Soyabean, Sugar etc. among the villagers of flood affected areas of Medinipur.
- ▶ Spreading lime and bleaching powder at flood affected areas.



- ▶ The initiative taken by NSS, JU in Pulse polio immunization programme benefited more than 136 children and their health check-up and awareness camp benefited approximately 1520 people.



- ▶ In this year, three Literacy Programmes were conducted by NSS, Jadavpur University, in which more than 80 people were literate.



- ▶ NSS-JU organized four awareness rallies on Fit India Freedom Run 2.0, Clean India under Swachh Bharat Mission, Darwin Day, and Water Day. A total of 615 students participated in these programmes.

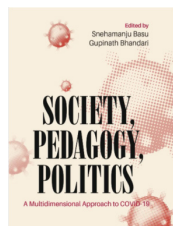


- ▶ More than 139 units of blood were donated and more than 308 saplings were planted at various locations in Kolkata and surrounding areas.



# Books Published

## Books published by JU Press



- *Society, Pedagogy, Politics: A Multidimensional Approach to COVID-19*, eds. Snehmanju Basu and Gupinath Bhandari (ISBN: 978-93-83660-90-2 ; 2022)



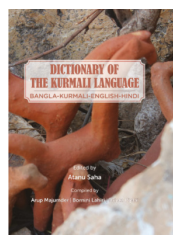
- *Things Reborn: Essays on the Renaissance*, by Sukanta Chaudhuri (ISBN: 978-93-83660-80-3; 2022)



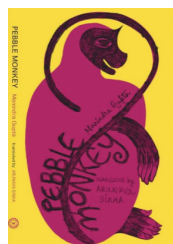
- *Amare di Tomar Hate*, by Inês Pedrosa, trans. Rita Ray (ISBN: 978-93-83660-88-9; 2022)



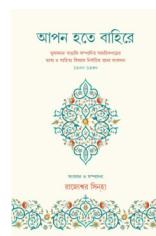
- *Nari bibarjito purushera*, by Haruki Murakami, trans. Abhijit Mukherjee, Subha Bose, and Alok Bose (ISBN: 978-93-83660-82-7; 2021).



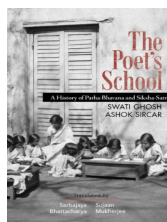
- *Dictionary of the Kurmali Language*, eds. Atanu Saha, Bornini Lahiri, Arup Majumder, and Dripta Piplai (ISBN: 978-93-83660-54-4 ; 2021).



- *Pebblemonkey*, by Manindra Gupta, trans. Arunava Sinha (ISBN: 978-93-83660-91-9; 2022).



- *Apon Hote Bahire*, by Rajyeswar Sinha (ISBN: 978-93-83660-68-1; 2022)



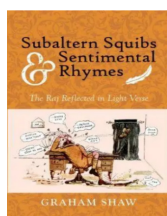
- *The Poet's School: A History of Patha-Bhavana and Siksha-Satra*, by Swati Ghosh and Ashok Sircar, trans. Sarbajaya Bhattacharya and Sujaan Mukherjee (ISBN: 978-93-83660-81-0; 2022)



- *Hatita udhao*, by Haruki Murakami, trans. Abhijit Mukherjee, Anuradha Chatterjee, Reema Ray, and Subha Bose (ISBN: 978-93-83660-67-4; 2021)



- *Makers of Jadavpur: A Technological Perspective*, by Rajat Kanti Baisya (ISBN: 978-93-83660-75-9; 2021)



- *Subaltern Squibs and Sentimental Rhymes: The Raj Reflected in Light Verse*, edited by Graham Shaw (ISBN: 978-93-83660-58-2; 2021)





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