

# St. Xavier's College (Autonomous), Kolkata

## Fr. Verstraeten Central Library

# NEWSLETTER



Fr. Verstraeten

Vol. II

July - December, 2025

No.2

## Principal's Message



Dear readers,

It gives me immense joy to address you through the second issue of the second volume of our Library Newsletter. Each edition of this publication is a celebration of learning, reflection, and our shared journey toward a brighter academic future.

We stand today at the crossroads of an extraordinary transformation. In this remarkable age of Artificial Intelligence (AI), libraries across Higher Education Institutions in India are emerging as beacons of knowledge and empowerment. They are not only guardians of books and information but also catalysts for cultivating AI literacy – opening doors for students to explore, adapt, and thrive in a rapidly evolving world.

Our libraries provide more than access to resources; they nurture curiosity, foster collaboration, and create communities of lifelong learners. By integrating AI into their services, they are redefining what it means to support students – making learning more accessible, dynamic, and personalised than ever before.

At the national level, the Government of India has embraced AI as a transformative force capable of reshaping the future of education. Through

the National Education Policy (NEP) 2020 and visionary initiatives such as "AI for All" and "Viksit Bharat @ 2047", the government aims to empower every learner with the skills, confidence, and opportunities needed to succeed in a technology-driven era. This forward-looking vision is guided by a strong commitment to ethics, data privacy, and the enduring importance of human educators – ensuring that progress remains inclusive and compassionate.

Inspired by this national aspiration, our college, too, has taken meaningful strides toward integrating AI into our academic framework. We are committed to equipping our students not only with knowledge but with the imagination and resilience required to lead in a data-driven world. Through innovative curricula and hands-on learning, we aim to prepare them to embrace future opportunities with confidence, creativity, and purpose.

As we continue this journey together, let us reaffirm our belief in the transformative power of education. May our library remain a space where ideas flourish, where technology and tradition coexist harmoniously, and where every learner discovers the courage to shape their own future.

Warm regards,

**Rev. Dr. Dominic Savio, SJ**

Principal

Director, Central Library

## Artificial Intelligence (AI) in Management Education



AI is reshaping management education by introducing data-driven, technology-enhanced approaches to teaching and learning. As the global business environment becomes more digital, AI must be seen not merely as a support tool but as a catalyst for transforming how future managers are prepared. As a central driver of the Fourth Industrial Revolution (Industry 4.0), AI is accelerating a technological shift that is reshaping societies, workplaces, and learning systems. Its growing presence across industries requires coordinated, system-wide responses. Significant labour-market disruptions are expected, estimates suggest that up to 30% of work activities could be automated by 2030, potentially affecting 375 million workers worldwide. Importantly, both blue-collar and white-collar roles face risks.

This technological upheaval is prompting major curricular shifts in management education. Traditional fields like marketing, finance, and operations now integrate AI-driven tools such as advanced analytics, machine learning, and natural language processing. These technologies allow students to engage with real-time data and strengthen evidence-based decision-making. At the same time, emerging areas (including AI ethics, digital leadership, and algorithmic governance) are becoming essential components of modern management programs. AI-powered simulations and virtual business environments further enable experiential, hands-on learning, helping students navigate complex and dynamic business challenges. Because AI crosses disciplinary boundaries, effective policy design requires collaboration among stakeholders in academia, industry, government, and civil society to ensure learning systems equip individuals with the competencies needed for an AI-driven world.

To meet future demands, management programs must balance technical skills with human-centric competencies. While students need foundational

knowledge of AI systems, they must also cultivate abilities in teamwork, ethical reasoning, creativity, and leadership. AI fosters interdisciplinary learning that spans data science, psychology, behavioural economics, and design thinking. Institutions that integrate AI effectively will be better positioned to produce graduates who are agile, responsible, and capable of thriving in evolving global contexts. As a result, education is shifting from rote memorization toward developing higher-order thinking, critical analysis, and adaptive problem-solving.

However, integrating AI into education raises important challenges. Faculty require continuous professional development to use AI tools effectively, while institutions must invest in robust digital infrastructure. Issues related to data privacy, algorithmic fairness, transparency, and responsible AI deployment necessitate strong governance frameworks. Although these challenges are significant, they also offer opportunities to build more equitable, transparent, and future-ready learning environments.

A key consideration in deploying AI is the commitment to equity and inclusion. AI should be treated as a public good that expands opportunities for women, marginalized groups, and learners from disadvantaged backgrounds. To deliver meaningful benefits, AI must be designed to reinforce human-centred teaching and uphold ethical standards. AI should enhance learning for all students, support educators, and strengthen institutional systems.

AI is a transformative force. It is modernizing curricula, improving pedagogy, and preparing students to navigate an increasingly complex world. The future of business education lies in harmonizing human insight with AI to build a more innovative, inclusive, and responsible world.

**Rev. Dr. Joseph Kulandai, SJ**

Vice-Principal, Postgraduate and Research Department of Commerce  
Assistant Director, Central Library

# Artificial Intelligence: Development, Applications, and Ethical Implications



Artificial Intelligence (AI) has witnessed unprecedented growth and transformation over the past decade. Technologies such as Machine Learning (ML), Natural Language Processing (NLP), and Computer Vision have rapidly permeated diverse domains, reshaping industries and influencing nearly every aspect of modern life. Increasingly, AI systems are performing complex tasks once reserved for humans, including decision-making and problem-solving across sectors such as business, logistics, manufacturing, transportation, healthcare, education, and governance.

The integration of AI into these fields has led to significant improvements in efficiency, productivity, and cost-effectiveness, contributing positively to economic growth, social progress, and human welfare. For instance, AI-powered chatbots now handle customer inquiries around the clock, enhancing user satisfaction and driving business performance. In healthcare, AI facilitates telemedicine services, enabling doctors to diagnose and treat patients in remote or underserved areas. Clearly, the rapid advancement and widespread adoption of AI are profoundly transforming human life, society, and institutions.

However, alongside these benefits, AI also presents serious ethical challenges. Issues such as algorithmic bias, lack of fairness, privacy breaches, accountability gaps, and system failures have raised growing concern among researchers, policymakers, and the public. These challenges underscore the urgent need to develop and apply AI responsibly and ethically.

AI ethics—also referred to as machine ethics—is an emerging, interdisciplinary field dedicated to examining and addressing the moral and ethical implications of AI. It encompasses both *the ethics of AI*—which focuses on the principles, guidelines, policies, and regulations governing AI development and deployment—and *ethical AI*, which refers to designing AI systems that can act in alignment with ethical norms and human values. The ethics of AI provides the essential foundation for creating ethical AI; it establishes the moral framework that determines what is right or wrong in the design, implementation, and use of AI technologies.

In sum, while AI continues to revolutionize modern society, ensuring that its development and application remain aligned with ethical standards is imperative for building a trustworthy, inclusive, and human-centered future.

## Dr. Sumona Ghosh

Member Secretary, Academic Council

Associate Professor

Postgraduate and Research Department of Commerce

## Artificial Intelligence in Research



Artificial Intelligence is presently ruling the Earth in every field of life, so obviously in the field of research and development, it has made the R & D process innovative and dynamic, which makes research lot faster. It enhances productivity by freeing up researchers from repetitive work and allows for the exploration of more complex problems and the development of new, personalized products and solutions.

Adherence to AI will change the research and development in the following way:

### 1. Rapid data analysis:

AI excels at finding patterns and trends in large datasets, which provides data-driven insights for making more informed decisions.

### 2. Easy decision through prediction:

AI-powered tools like predictive analytics offer real-time monitoring and feedback, helping R&D teams to make smarter, faster, and more strategic decisions.

### 3. Accelerated discovery and innovation:

AI will help in the development of new prototypes with maximum variation and analyse bulk data to identify promising compounds, materials, or designs that might be missed by human researchers.

### 4. Simplistic dissertation processing:

AI automates monotonous tasks like literature reviews, data entry, and quality assurance testing, thus Ph.D. scholars get more time in formulating wet lab experiments instead of devoting more time in searching for relevant papers.

### 5. Enabling new possibilities:

AI allows R&D teams to tackle problems that were previously unsolvable, and create more personalized and innovative products and services tailored for personal need.

### 6. Simulation of relevant data:

AI can improve the accuracy of simulations through the creation of virtual laboratory.

### 7. Risk reduction and quality assurance:

By automating tests and identifying defects early in the process, AI helps to predict issues, which may become major problems in future, improving product quality and saving time, money and energy.

We are not in a position to state the future of research will greatly improve with the emergence of artificial intelligence, but surely AI driven research will be the trend in future world.

## Dr. Arup Kumar Mitra

Controller of Examinations

Associate Professor

Postgraduate and Research Department of Microbiology  
HOD, Environmental Studies

# AI in Social Science Education: Transforming Learning and Research



The rapid advancement of Artificial Intelligence (AI) is transforming the landscape of contemporary higher education. Traditionally rooted in critical thinking, interpretation, and human-centric inquiry, social sciences—encompassing fields such as Sociology, Political Science, Economics, Psychology and Anthropology—are now engaging with AI both as a subject of study and as a powerful pedagogical tool.

The integration of AI into social science education offers unique opportunities for research, analysis, and personalized learning, while also raising profound ethical and epistemological questions about knowledge production, bias, and the nature of human understanding.

One of the most significant contributions of AI to social science education lies in its capacity for data analysis and modelling. Social scientists today deal with vast amounts of digital data—from demography to government reports to migration patterns and economic trends. AI-driven tools such as machine learning algorithms and natural language processing enable students and researchers to process, visualize, and interpret complex data sets with remarkable efficiency. This has made empirical research more accessible and dynamic, allowing learners to explore social phenomena at scales previously unimaginable.

AI also has transformative potential for pedagogy. Intelligent tutoring systems and adaptive learning platforms can personalize

education by responding to students' individual learning styles, progress, and needs. For social science educators, this means moving beyond the one-size-fits-all approach toward a more inclusive and participatory model of teaching. Chatbots and AI-powered discussion tools can facilitate debate, provide instant feedback, and even simulate historical or political scenarios, thereby deepening students' engagement and critical reasoning. Virtual reality (VR) and AI-generated case studies, for instance, allow learners to experience social contexts—from urban poverty to governance dilemmas—through immersive, experiential learning.

However, the integration of AI into social science education is not without challenges. A major concern lies in the issue of algorithmic bias—the tendency of AI systems to reproduce and amplify existing social inequalities embedded in their training data. For disciplines devoted to examining power structures, inequality, and ethics, this presents a pressing pedagogical responsibility: students must learn to use AI tools in a responsible manner. AI can never be an alternative to human reasoning. The danger of over-reliance on automated tools risks diminishing the interpretive and empathetic dimensions that are central to social science inquiry. Thus, educators must strike a balance between embracing AI's potential and preserving the reflexive, humanistic core of social science education.

**Dr. Jhumpa Mukherjee**

Co-ordinator, IQAC

Associate Professor

HOD, Postgraduate and Research Department of Political Science

## Artificial Intelligence in Science Education



Artificial Intelligence is revolutionizing the way students learn various scientific concepts. Some of the algorithms used in this context are Machine Learning (ML), Deep Learning (DL) and Generative AI. Using these educators can create personalized learning experiences that cater to the needs of individual students, thereby enhancing personalised learning. In science education personalised learning provides adaptive

learning platforms which enhances learning various new concepts. These algorithms can analyse students' learning progress and identify the concepts a student is deficient in. Tutors can also adjust the difficulty level of lessons as per the learner's need. Another form of learning is collaborative learning in which students learn by discussion among themselves.

A tool that is often used by science students is concept maps. Here a subject or a paper is divided into concepts and relations among concepts shown using arrows. After learning a concept, a student must appear for a test in that concept. If the student fails in the test, the tutor concludes that the student has not learnt the previous

concept thoroughly and is asked to revise it. This helps a learner identify areas where they are struggling and offer additional practice or tailored explanations, helping overcome challenges at their own pace.

AI can enhance learning through virtual labs and simulations. These tools enable students to conduct experiments and explore scientific phenomena in a virtual environment, without the need for expensive equipment or physical lab space. Virtual simulations can mimic complex scientific processes, such as fluid dynamics or various mathematical theorems, allowing students to interact with concepts in a way that would not be possible in a traditional learning. AI can support teachers by automating administrative tasks, such as grading and progress tracking, freeing up time for more personalized instruction.

Overall, AI in science education holds the potential to make learning more engaging, efficient, and tailored to the needs of each student, ultimately improving both access to education and the quality of learning experiences.

**Dr. Anal Acharya**

Associate Professor

Postgraduate and Research Department of Computer Science

# Central Library Bi-Annual Report (Jul-Dec, 2025)

The Central Library of St. Xavier's College strengthened its academic support services during the year through expanded digital access, training programmes, and professional development initiatives, ensuring improved service delivery to students, faculty, and researchers.

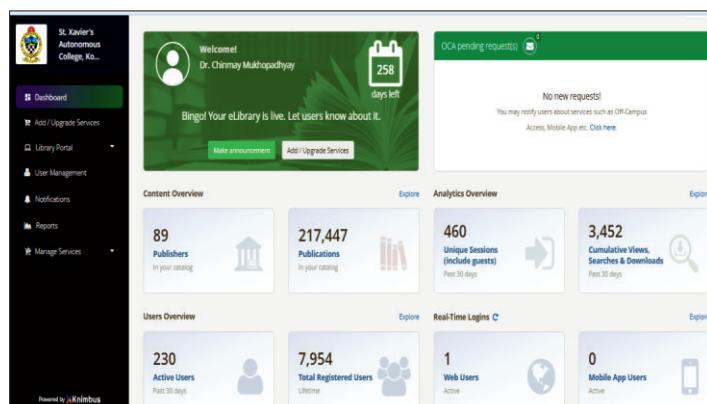
A major development was the introduction of remote access to subscribed e-resources through the customized Knimbus eLibrary platform. This facility enables users to access the digital collection anytime and from any location using authenticated logins. The platform provides a unified interface for multiple publishers and integrates open-access resources with institutional subscriptions. A dedicated training session and online meeting were conducted to familiarize users with the system.

To enhance digital literacy, the Library organised a ProQuest User Awareness Session on 24th July 2025, led by resource persons from ProQuest One Literature. The session showcased upgraded

features and applications for interdisciplinary research and literature studies, benefitting both users and library staff. Professional training was further supported through a one-month internship programme for a BLIS student from IGNOU under the supervision of Dr. Chinmay Mukhopadhyay, Librarian, offering practical exposure to library operations.

An E-resources Awareness Drive was conducted during November and December 2025 to promote effective use of digital platforms. In addition, the Librarian and staff members participated in a state-level workshop on AI applications in libraries at Jadavpur University and a Turnitin Customer Roundtable on academic integrity in the age of AI.

An additional Knimbus training session was held in December, and SPSS software was installed in multiple library sections to support advanced research needs.



Knimbus eLibrary Platform



DELNET Digital Knowledge Hub

## Overview of Total Collection of Printed Books, Journals & Magazines

As on 31-12-2025

|                                   | Central Library | Education Department | Raghbapur Campus | Total  |
|-----------------------------------|-----------------|----------------------|------------------|--------|
| Total No. of Library Holdings     | 70,674          | 9,621                | 11,639           | 91,934 |
| No. of Books in Lending Section   | 51,452          | 4,687                | 9,023            | 65,162 |
| No. of Books in Reading Section   | 17,678          | 4,910                | 2,308            | 24,896 |
| No. of Books in Book Bank Section | 785             | 395                  | 302              | 1,482  |
| No. of Periodicals                | 126             | 7                    | 2                | 135    |
| No. of CDs/ DVDs                  | 772             | 24                   | 120              | 916    |
| No. of Reports                    | 176             | 0                    | 0                | 176    |
| No. of Ph.D. Thesis               | 45              | 0                    | 0                | 45     |
| No. of Newspapers                 | 10              | 2                    | 3                | 15     |

# E-Resources

## \*\* E - RESOURCES [ ACCESSIBLE ON-CAMPUS/OFF-CAMPUS ] \* \*

- INFLIBNET-NLIST
- JSTOR [Access through: DELNET]
- National Digital Library of India [NDLI]
- The National Archives of India [NAI]
- DELNET
- Indiastat
- ProQuest One Literature
- Prowess IQ
- Economic Outlook
- Oxford E-Books
- Pearson E-Books
- Sage Journals
- The Economist
- Harvard Business Review
- J-Gate e-Journal Portal
- MIMI MICA Indian Marketing Intelligence (Database)
- AIMS International Journal of Management
- Taxmann's Corporate Professionals Today
- Time
- Down to Earth
- The Hindu Business Line
- The Hindu
- Sportstar
- Frontline
- The Wall Street Journal
- Institutional Membership: British Council Library
- Institutional Membership: American Library
- iThenticate (Anti-Plagiarism Software)
- DrillBit (Anti-Plagiarism Software for Regional Languages)
- SPSS



Central Library E-Resources

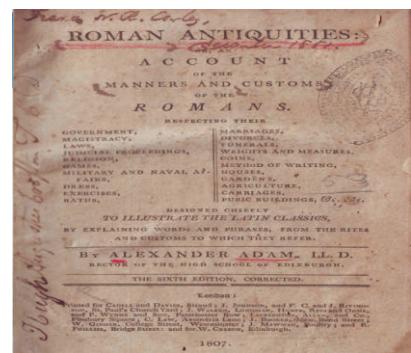


E-Resource Awareness Session

## Hidden Treasures

- Pessimisme / James Sully, 1882
- Report on the Phcenician and Roman Antiquities / A. A. Caruana, 1882
- Life of Goethe Vol 1-2 / Heinrich Duntzer, 1883
- Essays on the Philosophy of Theism Vol 1 / W. G. Ward, 1884
- Hobbes / G. C. Robertson, 1886
- The Story of Man / J. W. Buel, 1889
- System Der Philosophie / Willhelm Wunt, 1889
- Galileo and his Judges / F. R. Wegg-Prosser, 1889
- The Logic of Hagel / W. Wallace, 1892
- Ethic / Benedict De Spinoza, (Tr.), 1894
- Resume De la Philosophie De Herbet Spencer / F. H. Collins, 1894
- Lectures on philosophy of religion / George Wilhelm Friedrich, Hegel, 1895

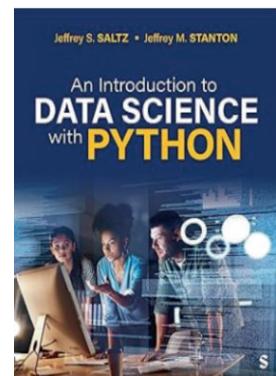
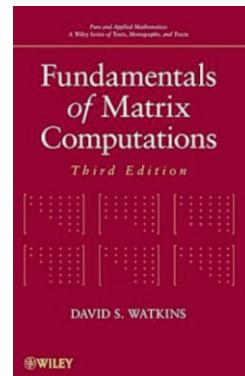
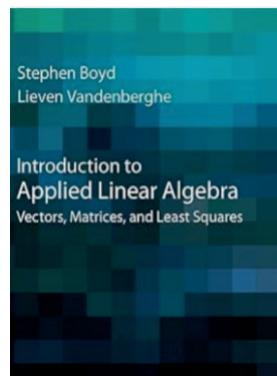
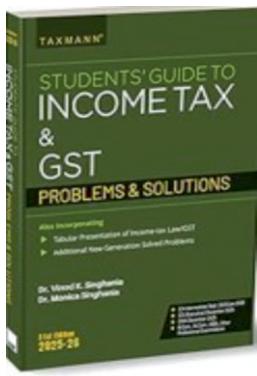
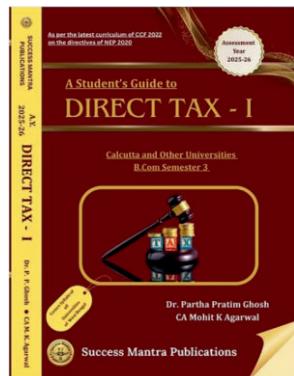
... to be continued in the next issue.



A UNESCO-supported project (2008)  
"Preservation and Conservation of Rare Documents  
of St. Xavier's College Library, Kolkata"

# New Arrivals

- Vector geometry & elements of calculus / Anindya Dey
- A First course in probability / Sheldon Ross
- Discrete mathematical structures / Bernard Kolman
- Discrete mathematics and its applications / Kenneth H. Rosen
- Linear algebra and its applications / Gilbert Strang
- Data science from scratch: first principles with Python / Joel Grus
- Learning python / Mark Lutz
- Python for everybody: exploring data using python 3 / Charles R. Severance
- Applied multivariate statistical analysis / Wolfgang Karl Hardle
- Linear models / R Julian
- Distributed computing in big data analytics: concepts, technologies and applications edited by Sourav Mazumder
- Matrix algebra: theory, computations and applications in statistics James E. Gentle
- Statistical inference via data science: a modern dive into R and the tidyverse / Chester Ismay
- Introduction to the practice of statistics / David S. Moore
- A Course in statistics with R / Prabhanjan Narayanachar Tattar
- Introduction to applied linear algebra: vectors, matrices, and least squares / Stephen Boyd
- Python programming / Reema Thareja
- Bayesian ideas and data analysis / Ronald Christensen
- Applied multivariate statistical analysis / Richard A. Johnson
- Data structures and algorithms in python / Michael T. Goodrich
- Introducing data science: big data, machine learning, and more, using python tools / Davy Cielen
- Auditing / Aruna Jha
- An Introduction to data science with python / Jeffrey S. Saltz
- Fundamentals of matrix computations / David S. Watkins
- The Art of data science: a guide for anyone who works with data / Roger D. Peng
- Student's guide to income tax & GST / Vinod K. Singhania
- Student's guide to income tax & GST: problems & solutions / Vinod K. Singhania
- Direct tax I / Sanjay Mundhra
- Systematic approach to auditing & assurance with problems & hints / Kamal Garg
- Advanced calculus with applications in statistics / Andre I. Khuri
- Mathematics for machine learning / Marc Peter Deisenroth
- Financial management : theory and practice / Prasanna Chandra
- A Student's guide to direct tax -1 / Partha Pratim Ghosh
- Corporate accounting: volume 1 / Bhushan Kumar Goyal
- Corporate accounting : volume 2 / Bhushan Kumar Goyal
- Statistical inference for engineers and data scientists / Pierre Moulin
- Programming with Java / E. Balagurusamy
- Mercantile law / M. C. Kuchhal
- Rich dad, poor dad / Robert T. Kiyosaki
- Differential equations / J. G. Chakraborty
- Financial accounting1 / Soumya Mukherjee
- History of Indian journalism / J. Natarajan
- Consumer protection act : a commentary / G. B. Reddy
- Business law / N. D. Kapoor
- Elements of mercantile law : including company law and industrial law / N. D. Kapoor



# Ph.D. Scholars who have successfully completed Ph.D. viva-voce [Jul- Dec, 2025]

| Sl. No | Name of Ph.D. Scholar | Department       | Date of Ph.D. Viva-Voce Examination | Sl. No | Name of Ph.D. Scholar | Department   | Date of Ph.D. Viva-Voce Examination |
|--------|-----------------------|------------------|-------------------------------------|--------|-----------------------|--------------|-------------------------------------|
| 1      | Uzma Khan             | Commerce         | 14.08.2025                          | 6      | Uttaran Ghosh         | Physics      | 10.11.2025                          |
| 2      | Debabrata Datta       | Computer Science | 23.08.2025                          | 7      | Sonali Saha           | Commerce     | 13.11.2025                          |
| 3      | Chandana Paul         | Microbiology     | 30.08.2025                          | 8      | Sanjana Ghosh         | Microbiology | 22.11.2025                          |
| 4      | Sejuti Ray            | Microbiology     | 04.11.2025                          | 9      | Santa Ghosal          | Commerce     | 28.11.2025                          |
| 5      | Subhajit Saha         | Microbiology     | 08.11.2025                          | 10     | Payal Sharma          | Commerce     | 17.12.2025                          |

## Students Speak

"The college library provides an excellent research-friendly environment. The fully air-conditioned reading rooms, vast collection of books, Wi-Fi, and access to e-resources like J-Gate, journals, and the Prowess database greatly support my work as a research scholar. The staff is disciplined yet very helpful, and the rules are followed strictly. The separate e-resource centre, equipped with individual charging points, comfortable seating, and access to tablets and e-books, allows me to work peacefully. The librarian is extremely supportive and has consistently guided me in accessing all necessary resources. Overall, the library offers a highly conducive space for advanced research."

- Rushali Pradhan  
Research Scholar

Postgraduate and Research Department of Commerce

"The Central Library at St. Xavier's College (Autonomous), Kolkata offers a calm atmosphere, helpful staff, and excellent facilities, making it a consistently productive and enriching place to study."

- Navya Reshamwala  
B.Sc. (Economics), Sem-5

"The library facilities at SXCCAL are up to mark with what a student wants in his or her academic career. It has top notch IT

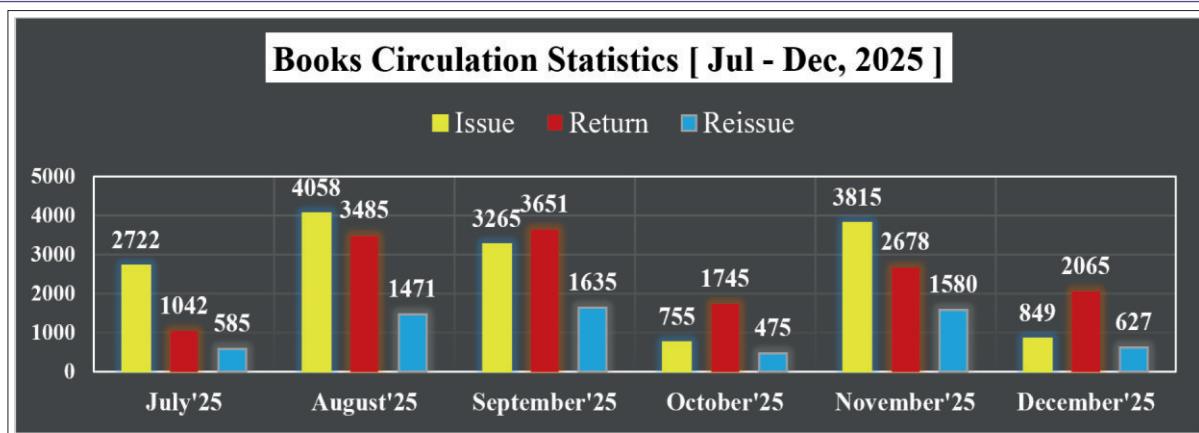
enabled facilities and best books which are up to date. I truly acknowledge the efforts put by the library teachers for maintaining decorum inside the library."

- Pushkar Agarwal  
B.Com. (Morning), Sem-3

"I would like to express my appreciation for the excellent services provided by the St. Xavier's College Central Library. The environment is consistently clean, quiet, and conducive to focused study, and the wide range of academic resources, both physical and digital greatly supports student learning. The library staff are always sweet, knowledgeable, and eager to assist, which makes every visit pleasant and productive. One small suggestion that could further enhance the study experience is the addition of a few more power outlets in popular seating areas, as this would be helpful for students working on laptops or other devices for extended periods. Overall, the library continues to be a vital and well-managed space that contributes significantly to the academic success of students. Thank you for your exceptional work and dedication."

- Pari Mundra  
B. Sc. (Mass Communication & Videography), Sem-2

## Books Circulation Statistics [Jul-Dec, 2025]



## Upcoming Events

|   |  |
|---|--|
| • E-Resources Awareness Session [January, 2026] | • MIMI MICA Database Awareness Session [March, 2026]             |
| • Library Book Exhibition [February, 2026]      | • Awareness Programme for Anti-Plagiarism Software [April, 2026] |



Release of the Library Newsletter (Vol. II Issue I)



Reference Section

IRINS Web-based Research Information Management (RIM) Service



QR Code Based Library Services



Students from Loyola College, Willimnagar, Meghalaya



Raghabpur Campus Library Section



Book Donation From Ex-Student



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