



KESHAV MAHAVIDYALAYA (University of Delhi)

AWARENESS SESSION

August 12, 2026

**4TH YEAR UG UNDER NEP 2020
RESEARCH, ACADEMIC PROJECTS & ENTREPRENEURSHIP**

IQAC, R&D Cell and NEP Coordinators

Single Core Discipline Programs (Honours Courses)

1. B. Com. (Hons)
2. B. A. Hons. (Psychology)
3. B.M.S.
4. B.Sc. (Hons) Physics
5. B.Sc.(Hons) Computer Science
6. B.Sc.(Hons) Mathematics
7. B.Sc.(Hons) Electronics

Multicore (3-Core) Discipline Programs (B. Sc. Program)

1. B.Sc. (Prog.) Physical Sciences with Computer Science
2. B.Sc. (Prog.) Mathematical Sciences

https://centenary.du.ac.in//userfiles/downloads/02032022_UGCF_compressed.pdf

UGCF 2022 Framework for 4th Year

<https://www.du.ac.in/uploads/UGCF-Flowchart.pdf>

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Tracks in 4th Year

Academic Track (Credits)	Practical / Outcome Requirement	DSE Coursework Requirement (Credits)	Total Credits in each Sem	Total Credits in 4 th year (VII +VIII semesters)
Track A: Academic Project (Major + Minor) (10)	Departmental Project / Applied Output + Dissertation	3 DSE or 2 DSE + 1 GE or 1 DSE + 2 GE (12)	22	44
Track B: Research (Major + Minor) (10)	Research Dissertation	3 DSE or 2 DSE + 1 GE or 1 DSE + 2 GE (12)	22	44
Track C: Entrepreneurship (10)	Startup Business Plan / Industry Internship / Outreach	3 DSE or 2 DSE + 1 GE or 1 DSE + 2 GE (12)	22	44
Track D: Coursework + Skill-Based Courses (SBC) [Option only for B.Sc. (P) Phy. Sc and Mathematical Sciences]	-----	5 DSE + 1 SBC (22)	22	44

Important Note:

- The Dissertation, Academic Project / Entrepreneurship will start in VII Sem, and the same will continue in VIII Sem. However, the evaluation and assessment will be done in VII Sem as well as in VIII Sem.
- Students studying DSEs offered by any Discipline other than his/her Core Discipline will be treated as GE for him/her.
- Research Methodology should have been studied either in VI or VII semester.

Major and Minor in the Degree

- In a single core discipline program, the student shall Major in the core discipline. However, if he/she wishes to Minor in another discipline, he/she must earn **28 credits from GE courses** in the second discipline.
- The student can Minor in another discipline if he/she fulfils the following criteria: Seven GEs = Minor ----- $(7 \times 4) = 28$ credits

Major and Minor in the Degree

- In a multicore (3-core) discipline program, the student can pursue a major in any one of the disciplines (Not from GE papers)
- To major in any one of the three disciplines, students must study at least **three** DSEs of that particular discipline in the first three years.
- In the fourth year (Sem VII and Sem VIII), students will study only one of the disciplines, i.e., either A or B or C, in both of the semesters.
- To pursue an Honours degree in a field of multidisciplinary study, candidates will have to choose, in the fourth year, only one of the disciplines (either A or B or C).
- Major and Minor shall be awarded on fulfilment of the following conditions. Major with atleast 80 credits, Minor with atleast 28 credits

4th Year UGCF Structure for Three-Core Discipline Programs

- Students of B.Sc. (P) will get a simple degree after completion of 3rd year and an Honours degree after completion of 4th year.
- B.Sc. (P) Students **will not get** 'Honours with Research' degree after completion of the 4th year even though such students write 'Dissertation' or do 'Academic Projects'.
- B.Sc. (P) Students may therefore be given a choice of studying purely with 5 DSEs and 1 SBC without having to do any of the three tracks envisaged (i.e. Dissertation/ Academic Project/ Entrepreneurship)
- **This facility cannot be extended to Single-core programme students.**

The Four Tracks

- **Research Dissertation**
- Academic Project
- Entrepreneurship
- Course Work + Skill Based Course (For multicore discipline)

Research Dissertation (same for Academic Project)

In Semester VII

The following four outcomes must be achieved by the end of VII Semester:

- Research Problem identification
- Review of literature
- Research design formulation
- Commencement of experimentation, fieldwork, or similar tasks

In Semester VIII

The following three outcomes must be achieved by the end of VIII Semester:

- Completion of experimentation/field work
- Submission of dissertation
- Research output in the form of any one of the following:
 - ✓ Prototype or product development/ patent
 - ✓ Any other scholastic work as recommended by the DRC & BRS and approved by the Research Council
 - ✓ Publication in a reputed Journals such as Scopus indexed journals or other similar quality journals
 - ✓ Book or Book Chapter in a publication by a reputed publisher

The Four Tracks

- Research Dissertation
- **Academic Project**
- Entrepreneurship
- Course Work + Skill Based Course (For multicore discipline)

Outcomes Expected: Academic Projects Track

Academic Project should be **an application based research** (not an exploratory or descriptive research) or a **real-life problem solving research** or a **book translation** or **projects leading to creation of a new product** (such as those of Bachelor of Fine Arts).

Academic Project

An academic project should be an application-based research (not an exploratory or descriptive research) or a real-life problem-solving research or a book translation or projects leading to the **creation of a new product** (such as those of Bachelor of Fine Arts).

Semester VII

The following four outcomes must be achieved by the end of VII Semester:

- Problem identification
- Review of literature
- Design formulation
- Commencement of experimentation, fieldwork, or similar tasks

Semester VIII

The following three outcomes must be achieved by the end of VIII Semester:

- Completion of the experimentation, fieldwork or similar task.
- Submission of project report
- Project output in the form of any one of the following
 - Prototype or product development or patent
 - Any other scholastic work as recommended by the DRC & BRS and approved by the Research Council
 - Publication in a reputed Journals such as Scopus indexed journals or other similar quality journals
 - Draft policy formulation and submission to the concerned Ministry
 - Book or Book Chapter in a publication by a reputed publisher
 - Book translation (for Language departments)

The Four Tracks

- Research Dissertation
- Academic Project
- **Entrepreneurship**
- Course Work + Skill Based Course (For multicore discipline)

Entrepreneurship Track

- Similar to a Dissertation or Academic project, the entrepreneurship track emphasizes problem identification, solution design, planning, implementation, and evaluation, but in the context of innovation, product development, or venture creation.

Alongside the research track, students also have the option to pursue the Entrepreneurship track as an equally rigorous academic pathway in their fourth year. Similar to a dissertation or academic project, the entrepreneurship track emphasizes problem identification, solution design, planning, implementation, and evaluation, but in the context of innovation, product development, or venture creation. Students learn to conceptualize ideas, validate them through market research, develop business or implementation models, and assess sustainability. Ethical practices, social responsibility, and academic integrity are as central here as in research, ensuring that students emerge not only with entrepreneurial skills but also with values of accountability and responsible innovation.

At the undergraduate level, the entrepreneurship component is introduced through Business Model Canvases (BMCs), feasibility reports, market research, prototypes, or social enterprise projects. These activities enable students to gain practical exposure in problem identification, opportunity validation, customer discovery, financial planning, and pitching to stakeholders. Equal emphasis is placed on entrepreneurial ethics, sustainability, and social responsibility, ensuring that students develop not only business acumen but also value-driven leadership.

Entrepreneurship Track

The entrepreneurship track nurtures innovation, resilience, and employability, while preparing students for advanced studies, start-up ecosystems, incubation opportunities, and meaningful societal contributions. By embedding entrepreneurship in the UGCF, students acquire lifelong innovation and entrepreneurial skills, bridging the gap between knowledge and action. Students are expected to prepare a venture development report or business plan. For science/technology-based projects, the document must include technical specifications, design diagrams, figures, and pilot testing results in addition to the business narrative.

The entrepreneurship project must be prepared with the approval of the Entrepreneurship Advisory Committee (EAC) or the Subject Entrepreneurship Committee (SEC). The venture planning process will span both the seventh and eighth semesters, with the seventh semester culminating in a detailed business plan and start-up pitch. Students must follow appropriate referencing and ethical guidelines for data sources, market analysis, and financial reporting. *Entrepreneurship Advisory Committee (EAC)*

- Supervisor of the main department
- Another faculty related to the area of entrepreneurship
- An industry expert who can be also the co-supervisor / invited industry expert / expert from an incubator or startup ecosystem/ Invited experts from the DSSEED approved pool of mentors.

Entrepreneurship Track

Monitoring Requirements

- Students must maintain a Monthly Progress Logbook signed by the supervisor.
- Regular mentoring meetings with the EAC/SEC should be documented.
- Prototype/MVP development milestones must be recorded.
- Any market testing, user interviews, or stakeholder consultations must be submitted as evidence.
- Ethical norms must be followed for data collection, user testing, and financial reporting.

Entrepreneurship Track: What Will You Actually Do in Semester VII?

Think of it as a structured venture-development project—not simply a business idea or a presentation.

Problem → Idea → Validation → MVP → Business Model → Financials → Pitch

1 Start with a real problem

Generate at least TWO potential start-up ideas. Define the problem, who experiences it, why it matters, and the proposed value proposition.

2 Validate before building

Conduct market research and customer-discovery interviews. Identify target customers, competitors, unmet needs/gaps and evidence that the problem is real.

3 Build & refine

Select the final idea with mentor/committee feedback. Develop a Business Model Canvas and a basic prototype/MVP; test it and iterate using feedback.

Important expectations

- Project must be approved by the EAC/SEC
- Up to 3 students may work on one idea, but assessment is INDIVIDUAL
- Maintain progress evidence/logbook/e-portfolio
- Use ethical, reliable and properly referenced data

Semester VII outcome: a validated business idea + refined business model + MVP/prototype + basic financial/legal plan + pitch

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Semester VII: Your Deliverables & How You Will Be Assessed

Total: 240 marks (6 credits × 40 marks). The emphasis is on evidence, validation and execution.

01	Idea Generation & Validation	2 ideas; novelty, problem–solution fit, relevance, impact & scalability	20 marks
02	Market Research & Customer Discovery	Research methods, depth of data, interviews, customer needs/gaps	20 marks
03	Finalising the Business Idea	Problem/scope, target market, channels, resources/partners, risks, limitations	80 marks
04	Prototype / MVP + Business Model	Working basic version/process + testing, feedback and iteration	40 marks
05	Financial & Legal Planning	Budget, revenue forecast, cost/pricing/funding + IPR + ethics	20 marks
06	Pitch Preparation	Pitch deck covering idea, market, MVP and financials	20 marks
07	End-term Presentation & Viva	Business model presentation + viva on originality, feasibility, scalability, finances & ethics	40 marks

By the end of Semester VII, you should be able to **SHOW**—not merely tell—why your venture could work.

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Sample Semester VII Project: “CampusCycle”

Illustration only: a student-led circular-economy service for affordable, refurbished college essentials.

A. Problem & Idea

Students often need affordable used books, calculators, lab coats and other semester-specific items. Existing resale is fragmented and unreliable.

Idea: a verified campus marketplace + pickup/return service.

B. Validate

Test TWO ideas first. For CampusCycle: survey students + interview buyers/sellers; map competitors; measure willingness to buy/sell and key pain points.

C. Business Model

Customer: students. Value: trusted, affordable, convenient reuse.
Channels: campus ambassadors + digital marketplace.
Revenue: small transaction/service fee.

D. MVP

Start small: a verified catalogue + simple ordering form/website + one-campus pickup process. Pilot with a limited number of transactions.

What the Semester VII file/presentation could contain

- 1. Two initial ideas + validation evidence
- 2. Customer segments, interviews & competitor analysis
- 3. Final problem statement + scope
- 4. Business Model Canvas
- 5. Prototype/MVP screenshots or demonstration
- 6. Test results + customer feedback + changes made
- 7. Budget, pricing, revenue forecast & funding need
- 8. IPR awareness + sustainability, safety & data/privacy considerations

Based on the University of Delhi UGCF 4th-year Entrepreneurship Track assessment guidelines.

FINAL PITCH STORY: Problem → Customer → Evidence → Solution/MVP → Business Model → Financials → Risks → Next Steps

The Four Tracks

- Research Dissertation
- Academic Project
- Entrepreneurship
- **Course Work + Skill Based Course (For multicore discipline)**

Course Work + Skill Based Course

5 DSEs +
2 credits SBC

SBC: Scientific Writing and Computational Analysis

SBC 8: Business Communication and Computational Analysis

SBC 8: Ethics for Responsible AI

SBC(OR): Spreadsheet Modelling and Data Visualization

Evaluation: Dissertation Writing Track (Research and Academic Project)

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Research and Academic Project

- VII Semester

Assessment Parameter	
Identification of the Research Problem(20 marks)	Novelty/Innovation in Approach
	Contemporary relevance of the research (originality)
Literature Review (30 Marks)	Use of Appropriate database
	Balance of primary research articles vs reviews
	Identification of research gaps
Formulation of Research Design (120 Marks)	Statement of problem
	Scope of Research
	Aims and Objective
	Research Questions
	Hypothesis (if applicable)
	Research Methodologies
Commencement of Data Collection, experiment work, or equivalent activities (30 Marks)	Research Limitations
End Term Assessment (40 Marks)	Presentation
	Viva Voce

- VIII Semester

Sr. No.	Assessment Paramete
1	Completion of Experimentation / Fieldwork/ Data collection
2	Final Report Submission: Aim, Review of Literature, Objectives, Methodology, Results, Conclusions, Discussion, Further Scope of Research
3	Recommendations and Originality, Relevance, and Practical/ submission of any one: 3(a) Research Publication (30-40) 3(b) Book / Book Chapter Publication (20-40) 3(c) Prototype / Product / Patent: (20-40) 3(d) Other Scholarly Work (Upto 30) 3(e) Draft Policy Formulation (20-40)
4	End Term Assessment (Presentation)
	End Term Assessment (Viva Voce)

Evaluation: Entrepreneurship

VII Semester

Sr. No.	Expected Outcome	Assessment Parameter
1	Review and Refinement of Prototype/ MVP	• Functionality of MVP, clear problem-solution fit • User Testing Conducted • Incorporation of Feedback • Technical Quality / Usability
2	Legal and Regulatory Compliance	• Identification of Required Licenses/Permits • Awareness of Industry Regulations • Intellectual Property Considerations- patents, logos, trademarks • Compliance Plan & Documentation Preparedness
3	Operational Planning	• Production / Service Delivery Process • Resource Planning- materials, equipment, technology • Supply Chain & Vendor Planning • Operational Feasibility & Timeline
4	Marketing and Sales Strategy	• Positioning & Branding for Target Market - logo, message, value proposition • Pricing Strategy • Promotion Strategy - online/offline marketing • Sales Strategy - channels, sales process
5	Financial Planning	• Startup Costs Estimation • Operational Costs Estimation • Revenue Model & Pricing Logic • Financial Forecasts - breakeven, cash-flow, profit • Justification & Factualness of Figures
6	Risk Management & Contingency Planning	• Identification of Major Risks - market, financial, operational, legal • Mitigation Strategies (preventive measures) • Contingency Plans (backup options)
7	Final Preparations for Launch	• Launch Timeline & Milestones • Readiness of Product/Service for Launch • Marketing Rollout & Customer Onboarding Plan • KPIs & Success Tracking Plan
8	Final Presentation and Review (80)	Presentation Viva Voce

VIII Semester

Idea Generation and Validation (20 marks)	Novelty/Innovation in idea Contemporary relevance, societal/ market impact
Market Research and Customer Discovery (20 Marks)	Use of Appropriate tools/methods Depth and relevance of data collected Evidence -based insights and identification of customer needs/gaps
Finalising the Business Idea (80 Marks)	Problem Statement and scope of venture Target Market Marketing Channels and strategy Key Resources and Partnerships Risk Analysis and Mitigation Constraints/Limitations
Prototype Development/(MVP) and Business Model Refinement (40 Marks)	Demonstrated prototype/website/app/service/MVP Testing/Optimization & customer feedback Documentation of design/prototype development
Financial and Legal Planning (20 Marks)	Prepare a basic financial plan, including a budget and revenue forecast IP awareness and basic screening(patents/trademarks/designs) Ethical compliance
Pitch Preparation (20 Marks)	Development of a pitch deck summarizing the business idea
End Term Assessment(40 Marks)	Presentation of business model Viva Voce

Type of Award of Degree

Type of Award of Degree

If a student exits after 3 years

- **For Single-core Discipline Programs**

Bachelor of (Field of Study) (Honours) Discipline

- **For Three-core Discipline Programs**

Bachelor of (Field of Multidisciplinary courses of Study)

Type of Award of Degree

After the Completion of 4 years

- **For Single-core Discipline Programs**

Bachelor of (Field of Study/ Discipline) (Honours with Research / Academic Projects/ Entrepreneurship) Discipline with Major (and Minor, if minimum 28 credits have obtained through GE papers)

- **For Three-core Discipline Programs**

Bachelor of (Field of Multidisciplinary courses of Study) (Honours)

Plagiarism, Ethics and Publication

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Plagiarism, Ethics and Publication

- All students need to follow the Research Ethics and maintain Academic Integrity.
- Report/Dissertation will be checked for Plagiarism.

AI Writing Tools and Ethics

Use AI as a **tool** not as a replacement

- ✓ AI tools help with grammar, clarity, summaries, and idea brainstorming
- ✓ Ethical use = support for writing, NOT replacement of student effort
- ✓ Unethical use includes submitting AI-generated text as your own
- ✓ AI-generated content requires verification (facts, references, accuracy)
- ✓ Many universities require disclosure or citation of AI assistance
- ✓ AI misuse is considered plagiarism/contract cheating
- ✓ Best practice: write your own ideas → use AI only for refinement
- ✓ Always follow institutional guidelines on acceptable AI usage

Academic Integrity in Practice

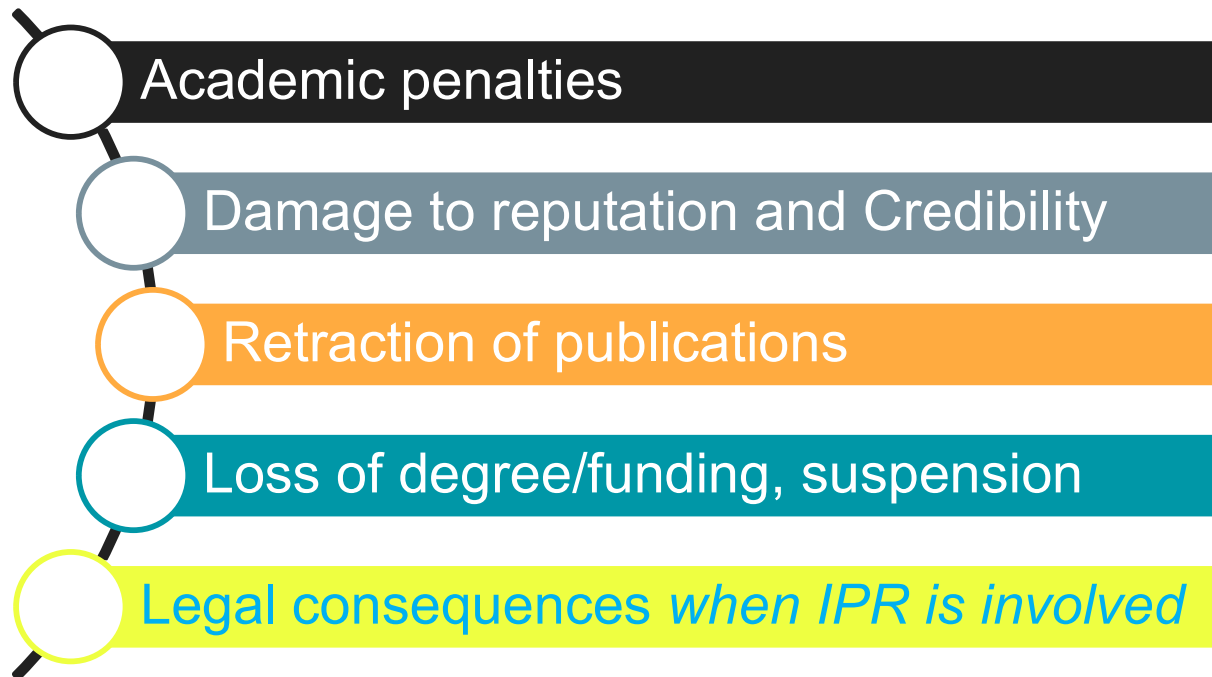
- ✓ Academic Integrity is upheld through honest use and acknowledgement of sources.
- ✓ Violations of integrity often appear as plagiarism or misuse of intellectual property.
- ✓ Proper respect for Intellectual Property Rights (IPR) is both an ethical and legal obligation.

Plagiarism in Research

Plagiarism involves using someone else's work, ideas, or words without proper attribution, presenting them as your own. This includes:

- Copying text, images, or data without citation.
- Paraphrasing ideas without acknowledgment.
- Submitting someone else's results or findings as original.
- Plagiarism undermines research integrity and can lead to academic penalties, damaged reputations, and legal consequences.

Consequences of Plagiarism



Plagiarism detection software must be used to ensure the originality of written work.

Penalties in case of plagiarism in submission of thesis and dissertations

Level 0:	Similarities upto 10%	Minor Similarities, no penalty
Level 1:	Similarities above 10% to 40%	Such student shall be asked to submit a revised script within a stipulated time period not exceeding.
Level 2:	Similarities above 40% to 60%	Such student shall be debarred from submitting a revised script for a period of one year.
Level 3:	Similarities above 60%	Such student registration for that programme shall be cancelled.

AI up to 20%

Avoidance of Plagiarism (Student/Researcher Responsibility)

Accurate note-taking

Practicing responsible writing

Paraphrase properly

Use citation managers (Zotero, Mendeley, EndNote)

Run Turnitin checks early

Detection of Plagiarism (Tools and Institutional Processes)



Turnitin / Urkund / Grammarly

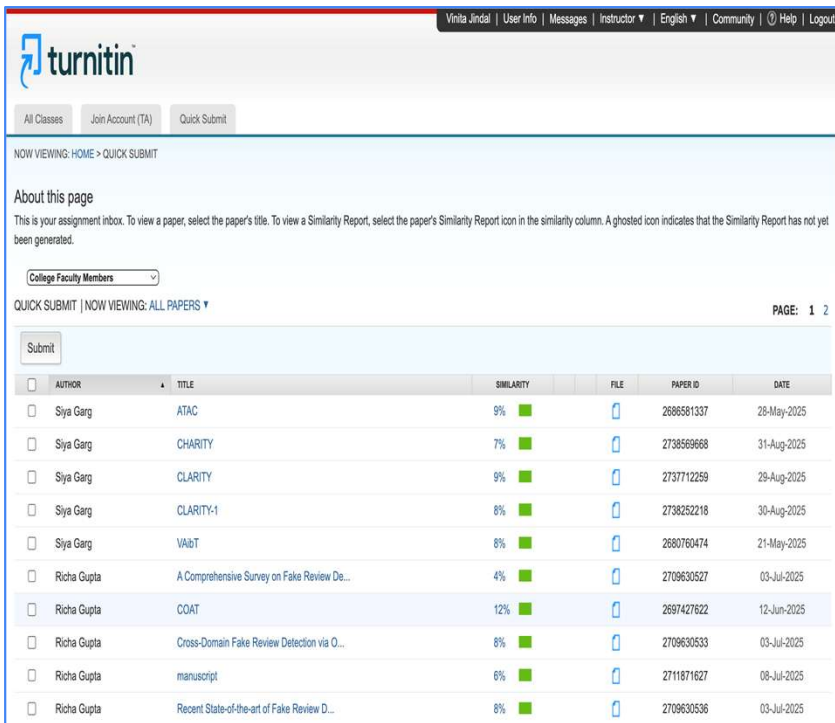


Similarity reports explained



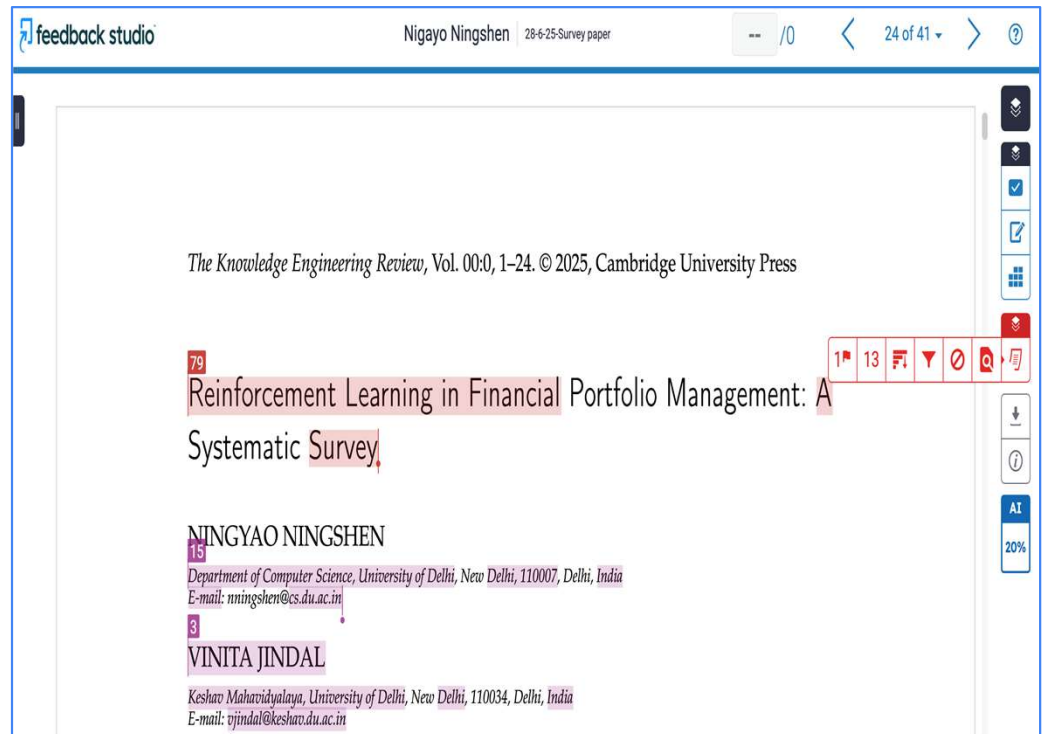
Institutional penalties

Snapshots of Turnitin Software's Reports



The Turnitin interface shows a user profile for Vinita Jindal. The main section displays a list of submitted papers with columns for Author, Title, Similarity, File, Paper ID, and Date. The similarity scores range from 4% to 12%.

AUTHOR	TITLE	SIMILARITY	FILE	PAPER ID	DATE
Siya Garg	ATAC	9%		2686581337	28-May-2025
Siya Garg	CHARITY	7%		2738596688	31-Aug-2025
Siya Garg	CLARITY	9%		2737712259	29-Aug-2025
Siya Garg	CLARITY-1	8%		2738252218	30-Aug-2025
Siya Garg	VARIT	8%		2680760474	21-May-2025
Richa Gupta	A Comprehensive Survey on Fake Review De...	4%		2709630527	03-Jul-2025
Richa Gupta	COAT	12%		2697427622	12-Jun-2025
Richa Gupta	Cross-Domain Fake Review Detection via Q...	8%		2709630533	03-Jul-2025
Richa Gupta	manuscript	6%		2711871627	08-Jul-2025
Richa Gupta	Recent State-of-the-art of Fake Review D...	8%		2709630536	03-Jul-2025



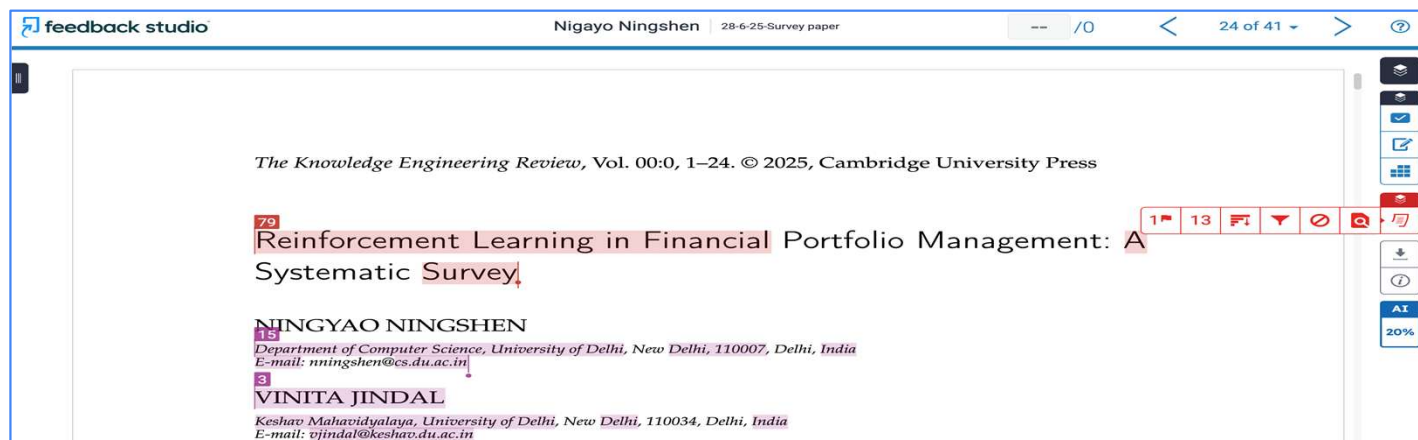
The Feedback Studio interface shows a document titled "The Knowledge Engineering Review, Vol. 00:0, 1-24. © 2025, Cambridge University Press". The document contains two highlighted sections with similarity scores:

- 79** Reinforcement Learning in Financial Portfolio Management: A Systematic Survey
- 15** NINGYAO NINGSHEN
Department of Computer Science, University of Delhi, New Delhi, 110007, Delhi, India
E-mail: nmingshen@cs.du.ac.in

Below these sections, the name VINITA JINDAL is highlighted with a similarity score of **3**. At the bottom, the text "Keshav Mahavidyalaya, University of Delhi, New Delhi, 110034, Delhi, India" and "E-mail: vjindal@keshav.du.ac.in" are also highlighted.

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Snapshots of Turnitin Software's Reports



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Thanks