Indian Institute of Technology, Delhi
Department of Humanities and Social Sciences

Cognitive Science Programme
Placement Brochure 2021-22
About Cognitive Science Group:

Cognitive science is an emerging new field of study that endeavors to study the mind from multiple perspectives and disciplines by combining ideas, principles and methods from psychology, linguistics, philosophy, computer science and neuroscience. This knowledge is applied for developing a better understanding of how our minds and brains work while also creating better products, tools, services and policies.

Lab Infrastructure:

The Department of HuSS has a Behavioural and Cognitive Science lab that is equipped with a state-of-the-art eye-tracker (Eyelink 1000 Plus), multiple PCs, and other basic psychometric equipment.

The institute has alotted the CogSci program a new space which will house (1) Computation and Cognition Lab, (2) Cognitive Processing Lab, and (3) Social Cognition and Group Processes Lab. For these labs, multiple iMac machines, PCs, Wearable/portable eye-trackers, etc. have already been purchased.
The HSS Department started offering the Master of Science (MSc) program in Cognitive Science from academic year 2020-21, with the primary aim to train students to professionally engage in the expanding frontiers of cognitive science. The program aims to build upon existing expertise of faculty members and aspires to create a knowledge pool which can address relevant problems under the ambit of human cognition.

The program draws students from multiple disciplines, bringing in fresh perspectives from their core disciplines and thereby encouraging a strong interdisciplinary approach.

The admissions to the program are conducted based on scores in National level entrance tests COGJET/JAM/GATE/CSIR/JRF/NET, followed by a personal interview.

**Core Courses Offered:**

- Introduction to Cognitive Science
- Basics of Programming for Cognitive Science
- Mathematical Foundations for Cognitive Science
- Language in the Mind
- Cognitive Neuroscience
- Computation and Cognition
- Philosophy of Mind and Cognition
- Cognitive Processes: From Labs to Fields
- Research Methods in Cognitive Science
- Language Computations and Mental Architecture
What Cognitive Science can Offer?

Being an interdisciplinary science in nature incorporating knowledge and techniques from fields like Linguistics, Computer Science, Psychology and Neuroscience, Cognitive Science graduates can work in a wide range of career profiles involving insights from these areas. Some illustrative sectors are listed below:

- Healthcare: Behavioural rehabilitation (e.g. Computerised Cognitive Behavioural Therapy (cCBT)); Cognitive Health; Behavioural changes for health and well-being; Affective computing tools for health management and monitoring
- Marketing, Finance and Consulting: Consumer insights; Neuro-economics; behavioural economics; Nudge design; behavioural finance; Customer Strategy; Marketing management
- Education: Learning management; Content creation; Digital voice and video-assisted learning; Remote and Online education strategies and tools
- Lifestyle/Well-being: Lifestyle app and services; Biophysiological and brain monitoring; Development of sessions for better well-being
- Smart city and Mobility: Travel behaviour and modelling; Urban design; City management; Urban and public space design; Aesthetics; Architectural design; Environmental/Nature-based designs
- Product Design: Human Factors and ergonomics, Consumer studies; Wearable and IoT based app/tool development; User experience (UI/UX)

Most of the common technologies on which cognitive science graduates could work will be relevant to multiple sectors. Examples include Natural Language Processing (NLP), Human-Computer Interaction, Assistive technology, Virtual/Augmented Reality, Cognitive Computing.
Undergraduate Backgrounds of the Graduating MSc. Batch

- Psychology: 1
- Civil/Mechanical Engg.: 4
- Computer Science/IT: 4
- Electrical/Electronics Engg.: 4
- Mathematics: 2
- Biology/Biotechnology: 3
- Linguistics: 1

Total: 19
Faculty Profiles:

Sumeet Agarwal (D.Phil - Systems Biology, Oxford University)
Assistant Professor - Computation Models
Research Areas: Machine Learning, Language Processing and Acquisition, Models of cognitive and neural representations

Pritha Chandra (Ph.D. Linguistics, University of Maryland College Park)
Professor - Theoretical Linguistics
Research Areas: Theoretical linguistics, Biolinguistics, Politics of language

Samar Husain (Ph.D. Computational Linguistics, IIIT-Hyderabad)
Assistant Professor - Psycholinguistics
Research Areas: Human sentence processing, natural language modelling, natural language parsing, and dependency grammars.

Kamlesh Singh (Ph.D. University of Rajasthan, Jaipur)
Associate Professor - Positive Psychology
Research Areas: Positive psychology, Psychometrics, Positive Psychological interventions

Purnima Singh (D.Phil. Psychology, University of Allahabad)
Professor - Social Psychology
Research Areas: Cultural basis, Intergroup emotions and intergroup relations, Social and Collective memory, Justice perceptions

Yashpal Jogdand (Ph.D. Psychology, University of St. Andrews, Scotland, UK)
Assistant Professor - Social and political psychology
Research Areas: Social identity, collective behaviour, intergroup conflicts, leadership and mobilisation

Sumitava Mukherjee (Ph.D. Cognitive Science, IIT Gandhinagar)
Assistant Professor - Cognitive Processing
Research Areas: Cognitive insights into Human judgement, decision making and behavioural economics with implications for science and technology, with a focus on algorithms and digital technology.

Paroma Sanyal (Ph.D. Linguistics, EFL-University, Hyderabad)
Assistant Professor - Theoretical Phonology and Morpho-Syntax
Research Areas: Optimality Theory, Harmonic Grammar, Distributed Morphology

Varsha Singh (Ph.D. Psychology, IIT Bombay)
Associate Professor - Cognitive Psychology
Research Areas: Cognition, emotion, decision making

Ashwini Vaidya (Ph.D. Linguistics & Cognitive Science, University of Colorado, Boulder)
Assistant Professor - Computational Linguistics
Research Areas: Computational and cognitive models of lexicon, language resources.
Contact us:

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