Ahmedabad University

10 YEARS 2009-2019

ISP 2019

Independent Study Period

ISP
2019
Independent Study Period

The Independent Study Period at Ahmedabad University offers students a chance to explore their interests and go beyond the classroom, making their academic learning truly interdisciplinary – and their conceptual understanding more experiential. This is made possible through collaboration with peers in a project-based environment.

Independent Study Period offers unique learning experiences, spanning 10 days that range from “Design Thinking” to “Artificial Intelligence”. Our courses are a crucial tool for students to experiment with new ideas and methods of learning.

Independent Study Period 2019 courses are rooted in disciplines like Literature, Sociology, Design, Science, Technology, Heritage, Humanities and Languages, and more – but they cut across areas and specialisations. These courses are offered in an 8-hour day format over 10 consecutive days, enabling concentrated learning through block courses, studio-inspired experiential courses, perspective, skill building and field courses and innovative experiments in learning.

Every course in the Independent Study Period is designed to:

- Ignite a passion or interest in the students
- Surpass disciplinary boundaries
- Develop a better understanding of theory
- Promote learning-by-doing methodology. All courses follow a hands-on approach and classroom teaching is minimised
- Produce tangible physical outputs that can be showcased during the Independent Study Period exhibition

A public exhibition inviting parents, the University community and people from the city is organised at the end of the Independent Study Period to showcase the work done by students and faculty.

The Aravalli: The Future of Gujarat

ISP091

Abstract

Step foot upon arguably the most ancient mountain range in the world and come face to face with its ancient communities. Examine the interface of the landscape and culture, development and evolution, and the self and the world. Trek, camp, reflect, engage. Stretching from Delhi in the northeast, across Rajasthan, until it fans out and dissipates in Northern Gujarat, the Aravalli Mountain Range has played a critical role in local geographical development. How a mountain range can form history, economics, culture and development can only be understood by experience and exploration. Thus, the students will explore the Aravalli, deep into its tribal lands, by camping and trekking to engage in historical perspectives on culture, geography and anthropology, which lend insights into natural design, human development, modern development and designs of harmony.

Methodology

Students are engaged in the experience of trekking in the forest and simple living in a village. A main aspect of our pedagogy is to engage the students in a space with activities away from the city and their normal lives with careful facilitation, lectures and reflection so that students can actually learn to observe the world in depth. Discussions and reflections are key methods used to analyse the students' experience. A field visit to the Polo Forest, Vijaynagar in Gujarat for 7 days is included in this course.

Academic Concept

The academic learning in this course revolves around linking the abstract idea of climate change to the living realities of the Aravallis and Gujarat, explaining the facts, figures and concepts. In this course students will learn about geology and hydrology as well as the scientific role of the mountains and forests in the regional watershed. Students will also examine and experience how culture and lifestyle affect the relationship of human society with the environment and in turn affect the human psyche. Through this interdisciplinary approach, students learn to view their area of study in a larger context and to consider its professional potential as well as the role of the professional.

Learning Outcome

- Importance of the Natural Heritage of the Southern Aravalli mountain range in the context of Regional Climate Control
- Wider Perspective on Faculties of Study: A basic understanding of the implications of professional work on the society, environment and climate at large
- Understanding the role of villages in India for ecological and economical sustenance

Tangible Outcome

Model of Hydrological Concept; either game or magazine elaborating learning outcomes.

Recommended for

Students interested in moving out of their comfort zones.

Instructors

Mackenzie Shreve completed her BA in Theology with a Minor in Leadership at Loyola University, Chicago, after which she travelled to India to better understand social justice in relation to the global agriculture industry. After settling in India she has continued to build her understanding of local culture, food systems and government to support sustainable agricultural practices and marketing that supports small farmers. Mackenzie also teaches Hindi and facilitates foreign volunteers.

Mihir Bhardwaj has widespread experience in fields such as education, wildlife, adventure sports, youth programming, professional training, cultural exchange and outdoor adventure cum sensitisation activities for groups of all sizes and backgrounds. He has over 20 years of experience working with tribal communities. Currently, Mihir is working with a variety of village communities towards sustainable solutions at the local level. He is focused on working with tribal youth to prevent migration by building a strong local economy under community leadership.

Biomimicry:
Nature Integrated Thinking and Living

ISP005

Abstract

The Biomimicry workshop will provide an introduction to a new discipline that looks at nature as a source of ideas and solutions to help solve human challenges. Each day, during the course, you will get to see and learn something new about the amazing patterns, designs and solutions in nature. You will also get to play learning games and go on field trips to explore nature. You will learn about the latest biomimicry tools and methodology, which you apply to a group project to develop a nature inspired innovation/solution to a human challenge.

Methodology

Lectures, presentations, field trips and outdoor exercises to observe and identify patterns in nature, in-class student presentations (peer learning), multidisciplinary explorations (building bridges with biology), Individual as well as group based assignments (short design explorations and one long design project), educational games, exercises, movies and activities, library/ web research and readings along with Introduction to using biological databases.

Academic Concept

- Operating conditions of planet earth
- Life's unifying patterns
- Integrating Biology into Design

Learning Outcome

The course aims to inform and equip participants in the following ways:

- Understand the concepts of nature's deep patterns/life's overarching principles and how these can inform the design of better and sustainable solutions
- Understand how to explore and learn from nature at various levels of product, process and systems
- Understand methods and tools to help in applying the Biomimicry approach to problem solving/innovation process: especially in the fields of Design Engineering and Business
- Reconnect with nature: learning to observe and take inspiration from nature (not about nature but from nature Observe and understand nature by function)

Tangible Outcome

Design explorations in various media:

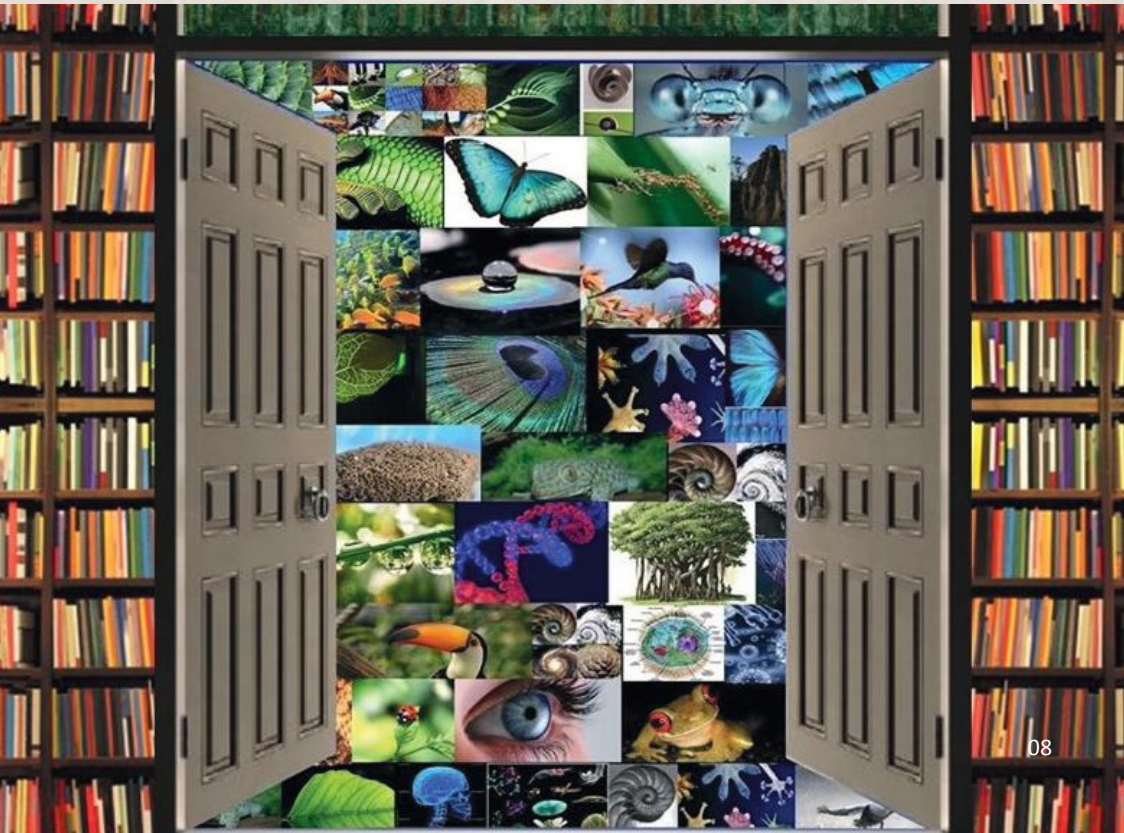
- The group projects of the participants (Design Challenge- Integrating Biology in Design) Poster/ Presentation/Physical model/models of explorations of biology looking at nature functionally
- Short video/animation to summarise and explain the project

Recommended for

Those who are inspired by nature and have a spirit of inquiry and innovation.

Instructor

Prashant Dhawan is the Co-founder of the Biomimicry India Network. He holds a degree in MS (Master of Science) in Biomimicry from the Arizona State University, USA and Biomimicry Professional Certification from Biomimicry 3.8, USA. He also holds a degree in Architecture from SPA Delhi and an MBA from ISB Hyderabad. Prashant prefers to call himself an amateur researcher of issues related to sustainable happiness.



Birds, Birds, Birds

ISP006

Abstract

The course is a 10-day immersion in the basics of ornithology. It will attempt to give students an appreciation of birds, their habitats, behaviour, their association with humans and their value to life as we know it. The course will start by tracing bird ancestry in a novel method and dive into morphology through a dissection demonstration. Students will have the opportunity to handle (voluntarily with appropriate safety measures in place) birds, get an up-close understanding of their morphology. They will learn about several adaptations and avian behaviour through guided research, exercises and presentations. There will be presentations of citizen science and live demonstrations of field methods to prepare students for the field component of the course.

Methodology

This course will employ the use of a variety of teaching methods. We will have a few lectures and presentations. However, the bulk of the learning is through field observations and doing independent (but guided) research that deepens the learning obtained in the field. This course includes a field trip to the Polo Forest and Kutch in Gujarat for 5 days.

Academic Concept

Course is designed to:

- Highlight the natural wealth and wonders of Gujarat
- Help students learn the concepts of avian diversity, bird-habitat associations, conservation issues, conservation administration, ecotourism, ecosystem services and human impact on avian ecosystems.

Learning Outcome

The course will help students

- Instill in themselves a sense of wonder
- Appreciate and engage with birds, going forward
- Understand the basics of bird diversity, behaviour, morphology, physiology etc.
- Experience the diversity of bird habitats first hand
- Understand concepts like ecosystem services, conservation issues, human impact, ecotourism, etc.
- Understand the role of citizens in conservation and science, and encourage their own participation

Tangible Outcome

Coffee table book on birds, conservation issues, ecotourism, human impacts, ecosystem services etc.

Recommended for

Bird enthusiasts

Instructor

Punit Lalbhai's fascination with birds started when he was three. He has a Bachelor's degree in Conservation Biology from University of California, Davis, and a Master's in Environmental Science from Yale University, both of which enabled him to study birds and bird communities across North America, Africa and India. Punit then went on to get an MBA from INSEAD, France, and now works for Arvind Ltd on developing business models that function at the intersection of sustainability, material science, engineering and conservation.

Cyber Security

ISP037

Abstract

Cyber-attacks are easier due to high Internet penetration and poor awareness about Cyber Security. A recent cyber awareness survey indicates that many users of digital devices have little knowledge about the fundamentals of Cyber Security. Hence, data stored on digital devices are more susceptible to cyber-attacks. This course helps students understand the fundamentals of Cyber Security and makes their surfing and digital transactions safe over the Internet.

Methodology

The course will be conducted through activity based learning, classroom discussion and demonstration of security tools, case study/scenario based learning, project based learning and laboratory practices.

Academic Concept

Students will learn the following academic concepts during the course:

- Fundamentals of Cyber Security
- Aspects of Information security over Internet
- Cyber-attacks and its prevention mechanisms
- Aspects of safe financial transactions over Internet
- E-commerce Security
- Security Management Practices
- Digital Forensics and Intellectual Property Rights in Cyberspace

Learning Outcome

After completing this course, students will have gained an awareness of key Cyber security principles. The students will be able to describe and classify various categories of cyber-attacks, understand how malicious code (virus, ransomware, etc.) works, apply prevention mechanisms to protect digital resources and personal data stored on devices and perform safe financial transactions over Internet with greater security.

Tangible Outcome

- Students will exhibit posters with live demonstration related to: E-mail forensics - detecting location of email sender; Detecting fake websites; Data Security using Cryptography Image forensics (detecting forged images); Steganography (Hiding data into image)
- Students will exhibit posters related to: Cyber-attacks and their prevention mechanisms; Safe financial transactions over Internet; Securing personal data on digital devices; E-commerce Security and Computer / Mobile Forensics

Recommended for

Students keen on learning about cyber-security and its solution

Instructor

Kuntal Patel is an Assistant Professor at School of Engineering and Applied Science, Ahmedabad University. He is a certified Cyber Security Professional. He has published more than 25 research papers at peer-reviewed Journals and Conferences.

Design Thinking, Designing Thinking

ISP013

Abstract

This course is aimed at enabling students to be their own version of a design thinker in any and all walks of life. Design is about creating conditions for beneficial change to happen on its own. Design Thinking is about creating conditions for Design to happen on its own. Since thought comes from within, this course aims to equip students to look within, refine themselves and then look at the world through a new vision...a vision of creativity, empathy, optimism and such attributes. This is not a self-help course. It is a scientific design thinking course mixing many different streams of knowledge to create a holistic understanding of the world.

Methodology

The course content will be based on a daily mix of theory, on-the-spot assignments and homework.

Academic Concept

Starting from eliminating misconceptions about what a designer is, what design is, the course will lead students to a better understanding about human beings and the world through a scientific perspective. Students will be trained in methods of observation, creativity as also techniques which improve their bodies and brains to become sharper in all aspects of life. Students will also address what are called as 'mental blocks', which inhibit them from performing to their peak efficiency despite their training. They will be trained in empathy. And finally, they will learn how to explore intuition deeply, and gain voluntary control on switching between small-scale and large-scale thinking, otherwise known as local and global processing.

Learning Outcome

- Enhanced observation skills
- Better representation and communication skills
- Elimination of mental blocks towards creative activities
- Increased empathy
- Scientific understanding of human beings and the world

Tangible Outcome

The outcome of the course will be models, prototypes, charts or may be partially functional products.

Recommended for

Students with an open mind and willingness to learn.

Instructor

Aditya Bharadwaj is a mechanical engineer and a product designer. He has more than 10 years of experience in the industry. He brings a mix of different streams of design, physics, chemistry, biology, economics, cryptography, human behaviour, the brain and even ancient Vedic texts.

Digital Fabrication with 3D Printing

ISP014

Abstract

Opening multiple avenues of exploration, three-dimensional (3D) printing helps you realise all your ideas into tangible products. 3D printing -- also known as additive manufacturing -- turns digital 3D models into solid objects by building them in layers. It is one of the most amazing rapid prototyping techniques ever. 3D printing has so many multi-disciplinary applications in the field of Education, Design, Architecture, Manufacturing etc.

Methodology

The course will follow a complete hands-on approach wherein students will be learning to take their ideas from a mere thought to digital design and then a physical prototype. The students will be learning design software to bring alive their ideas and how-to-use a 3D printer to print them in 3D.

Academic Concept

This course will help students understand how 3D printing is applied across a number of domains, including design, manufacturing, and retailing.

- It will also demonstrate the special capabilities of 3D printing such as customisation, self-assembly, and the ability to print complex objects
- In addition to business applications, this course will also examine how individuals, students including those in developing countries, are using this technology to create solutions to the everyday challenges they face
- This course will also provide an overview of design thinking and how you can use this framework to develop ideas that can be turned into objects.
- This course offers a rich understanding of the capabilities of 3D printing and how to think about designing objects for this new technology.

Learning Outcome

At the end of this module, students will be able to:

- Understand 3D printing technology
- Understand the working and construction of 3D printing machine and 3D Pen
- Learn about applications of 3D printing and independently use 3D design software to make 3D models of their ideas
- Convert the 3D prototypes to product finish models through post-processing

Tangible Outcome

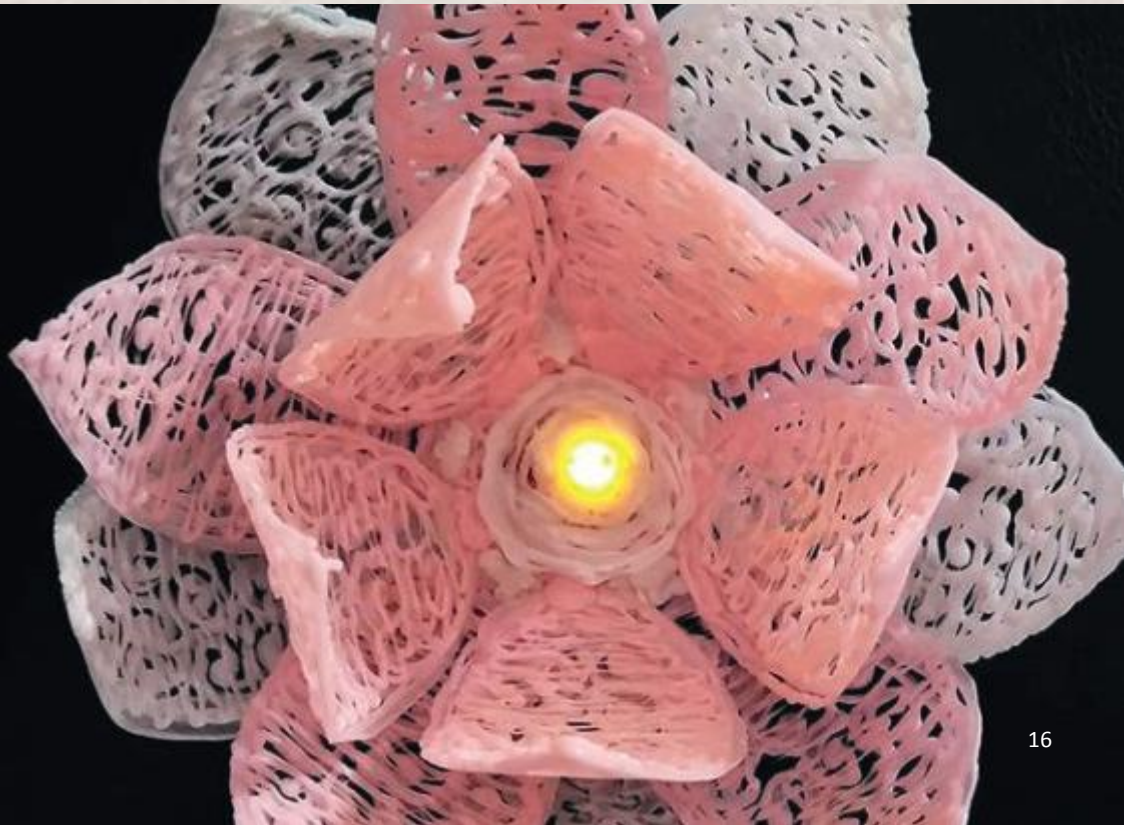
Students will be converting their ideas into physical prototypes that would range from name tags to architecture models, furniture replicas and functional prototypes.

Recommended for

This course is meant for students, hobbyists, designers and engineers interested in exploring 3D printing and fabrication.

Instructor

Prem Sagar, Founder and CEO, Banaao - A Makers Playground Visiting Faculty, Pearl Academy BE., Instrumentation and Control Engineering, NSIT (Delhi University) An engineer by qualification, he is an avid geek and is always keen to solve problems by using hardware technologies. He is a full-time Maker and Manager and is the founder of Gurugram's first Makerspace, Banaao- A Makers Playground, which is a multi-disciplinary innovation lab for people of all ages. His keen interest lies in democratising the access to technology. Tinkering since childhood, he has made numerous prototypes and projects in the fields of electronics, mechanical, solar etc. and has conducted multiple national and international workshops.



Drone Development

ISP015

Abstract

From 1st December 2018 it is legal to purchase drones and fly it up to a particular altitude. Drone Industry is the second fastest growing industry in the world with Indian Import industry accounting for 10 billion USD. Having a basic understanding about how drones work and how they fly would help the students operate as a drone pilot. During this course, the students would get a hands on experience in building of a drone and a remote controlled aircraft.

Methodology

This internship would help the students to have a clear understanding about how the drones are built and also about their maintenance. Every sub system of a drone would be explained to the students in detail, right from the basics in order to get a better understanding. The students would be building a Quadcopter and RC Aircraft during this course tenure.

Academic Concept

- Concepts of Aerodynamics and Physics of drones
- Different kinds of drones

Learning Outcome

On the completion of the internship the students would be able to build and fly drones. They would also be in a situation to design various drones depending upon the application

- Relationship to Biomimicry
- Practical applications of drone

Tangible Outcome

Students would be building and operating a fully functional Quadcopter and RC Aircraft

Recommended for

Anyone interested in building their own drones.

Instructor

Ezenith Education provides professional academic training in the form of workshops/internships/training programs to engineering students from Mechanical Engineering, Automobile Engineering, Electronics Engineering, Electronics and Telecommunication Engineering and Computer Engineering.







Living the Wildlife

ISP093

Abstract

The existence of wildlife in the urban settings is not a new phenomenon. In fact, records of wildlife-urban interactions have been found since the time human beings began to settle down and stopped living the nomadic lifestyle. Inspite of the fact that wildlife has always existed in cities and in the vicinity of humans, the study of these interactions is relatively new in the field of science. With the massively increased rates of urban sprawl that society has seen in the past century, the need for an extensive understanding of the relationships between humans and animals has increased, and this is the underlying motivation of this course on urban ecology.

Methodology

This course is a combination of field work and classroom engagement. Field work will include visiting wildlife rescue centres (Forest Department rescue and rehab centre and Jivdaya Charitable Trust), observing ecological niches (Kheda, Thol, Kanjari, and Mehsana) and a visit to an urban petting zoo which includes over 150 animals for compassion education. Classroom activity will include analysing field-work data, theorising urban wildlife ecology, designing a coffee-table picture book, and creating an information handout about urban wildlife.

Academic Concept

Participants will study about urban ecologies and wildlife. They will learn about the impact of human-wildlife interactions, and internalise the pressing need to conserve wildlife in urban areas. Participants will also learn different survey methods pertaining to habitat assessments, species inventories, and ecological research. They will also be equipped to use basic data analysis, survey equipment such as GPS and GIS software, and collate and analyse data gathered through field work. Additionally, participants will put to practice certain fundamentals of communication such as technical writing to produce materials on creating awareness.

Learning Outcome

- Contribute to conservation science, which is an interdisciplinary approach to protection of biodiversity
- Engage in real-time rescue of urban wildlife and learn some basic first-aid measures for conservation and subsequent rehabilitation
- Use survey methods for scientific data collection
- Educating/informing the urban population about co-existing with urban wildlife by creating information sheets and a coffee-table book

Tangible Outcome

Participants will design and publish a three-part coffee-table picture book - identification of urban wildlife, co-existence of humans and animals, and compassion expressions. They will also create information handouts containing important information on how to respond to urban wildlife. This will be accessible with a QR code and made publicly available through the virtual platforms.

Recommended for

Wildlife enthusiasts and nature lovers

Instructors

Soham Mukherjee is a Herpetologist and wildlife biologist, specialising in ecological research and animal behaviour. He is currently working on human-crocodile conflict, snakebite mitigation, and wildlife roadkill mitigation in Gujarat, herpetofaunal assessments in Western Ghats and Arunachal Pradesh. Previously worked as a wildlife rehabilitator for many years, before he as a curator at the Centre for Herpetology / Madras Crocodile Bank, and later as a wildlife specialist with Humane Society International in projects spread across nine countries. Recently he featured in Animal Planet's documentary series Snake Squad.

Tana Trivedi is faculty at Amrut Mody School of Management, Ahmedabad University. Her research interests include studies on ecology and literature, and diaspora studies.

Machine Learning and Artificial Intelligence

ISP094

Abstract

There is as much a sense of wonder around it as dread. Is it good or evil? Can we do without it? Artificial Intelligence will define the next generation of software solutions. The programme will familiarise the student with the various technical advancements in Machine Learning and Artificial Intelligence. It will also help the students understand the mathematics behind algorithms, how they can modify them to suit their needs and build smart Apps.

Methodology

The course uses a mix of engaging lectures and hands-on activities to help students take their first step in the exciting field of AI.

Academic Concept

Introduction to Machine Learning, Artificial Neural Network, Deep Learning, Fuzzy Logic, AIML Applications in real life like in a doctor's clinic or social media, are some of the topics that the students would be taught. The course would also include in depth understanding of platforms like TensorFlow and NumPy.

Learning Outcome

By the end of the course the students will:

- Develop a detailed understanding of Artificial Intelligence and its application in day to day life.
- Learn to use several relevant applications and tools like Python, Google Cloud Platform, and TensorFlow
- Understand trending topics like text mining, natural language processing, deep learning, neural networks, clustering, and classification, any or all that can be used to solve real-world problems

Tangible Outcome

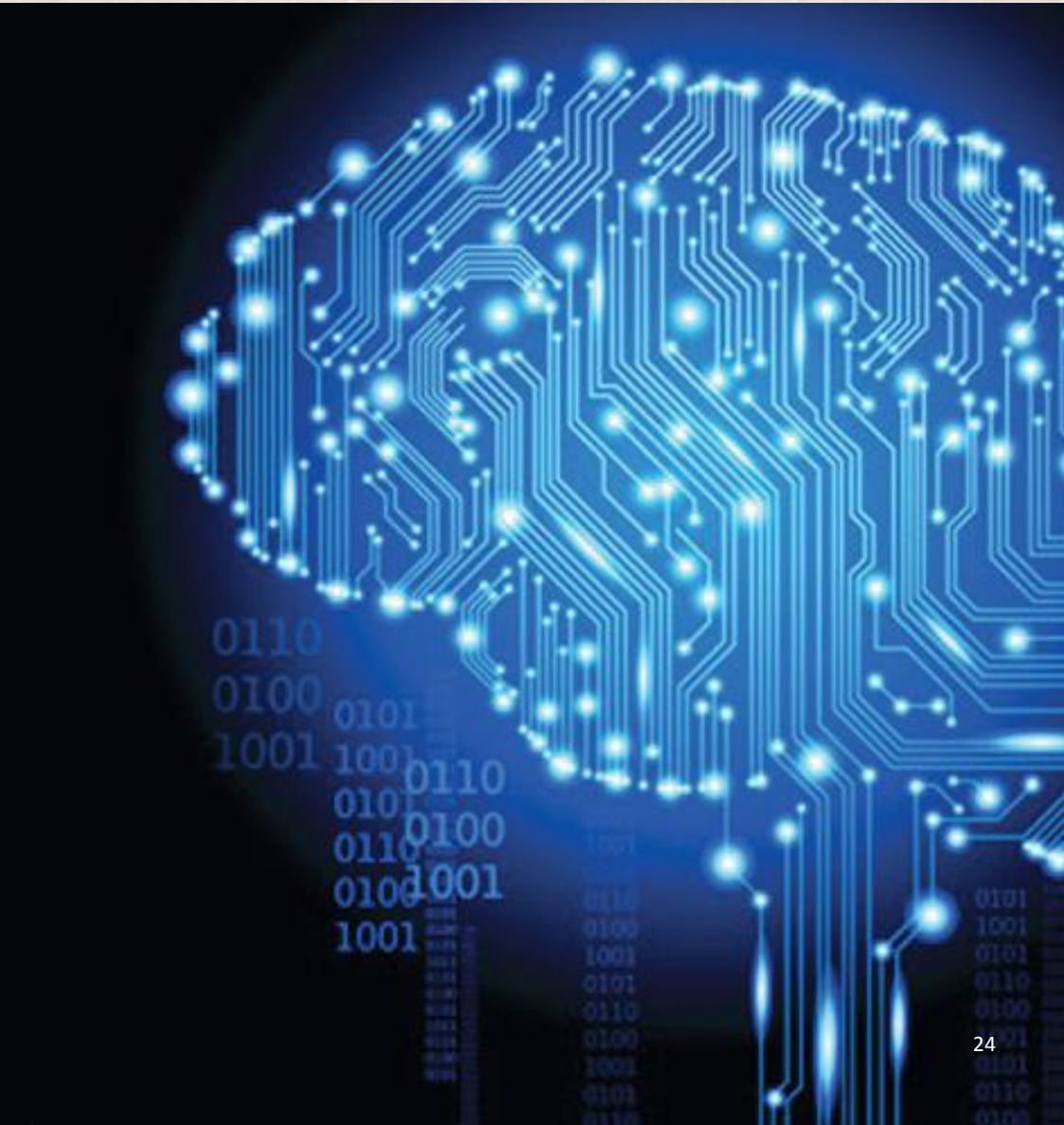
Developing an AI platform with or without the use of Python

Recommended for

If you find Artificial Intelligence intriguing or scary- this course is definitely for you!

Instructor

Ezenith Education is a pan India based Educational service provider for Engineering students. Their USP is the 100s of Industrial expert partnerships that they have. Due to these partnerships they are able to provide the students with the most advanced and contemporary learning experience. These experienced industrial experts teach the students share the lessons learnt from practical exposure.



Make an Impactful Short Film

ISP095

Abstract

The course work will introduce students to basic film-making process. The three major building blocks of films- Pre-Production, Production and Post-Production will be taught. It will teach them to write conceptual and executable scripts and screenplays. The logic and techniques to write a gripping and engaging short film will be taught. It will also be an introduction to film-production, shoot scheduling, shot divisions, art direction, light arrangement and sound recording, film budgeting and film distribution. The basic cameras, light equipment and sound recorders will be demonstrated. The set design and art direction basics will be taught. It will teach them to do basic film editing. The entire course-work will be a Learning by Doing exercise of each stages of film-making.

Methodology

The pedagogical model will include a cascading waterfall model of teaching. Each stage of the process will sequentially act as a pre-cursor to the next stage in coercion creating a successful short film as an output.

Academic Concept

Students will learn:

- How to visualize ideas, conceptualize and represent through the medium of films
- The film-making process and the art of executable team-building process
- How to work in teams with variegated skill- sets and how to do flow of information from one department to another
- How to creatively write their ideas in the form of stories

Learning Outcome

They will learn to:

- Conceptualize and represent their ideas in a better way using visual communication techniques and write for screen and films
- Convert presentations into films or videos that make impact

Tangible Outcome

Short films written and produced by student groups.

Recommended for

Anyone with an interest in story telling, script writing or film making.

Instructor

Tanmay Shah, Founder and CEO at FridayFictionFilms is a former Research Associate at IIT- Bombay. He holds a Limca Book Of Record, India Book Of Record, Asia Book Of Record and Golden Book Of World Record for making 52 short films in 52 weeks in 2015. His short documentary- Pinch Of Salt has won 15 international film festival awards and is screened at more than 10 countries. His latest documentary on the - 'History Of Ganga' is making the rounds in film festivals. FridayFictionFilms, his film production house has served more than 80 clients under his direction.

Mastering Multimedia for Great Careers

ISP096

Abstract

Videos, animation, audio podcasts and social media campaigns form the core of communications across the world. In this hands-on workshop, students will learn the fundamentals of writing and producing multimedia content—including podcasts, the fast-growing global communications format--using cell phones and free software. The class will work individually and in groups to present complex topics, such as climate change, clearly and concisely; convey information accurately; and tell stories to engage the general public. Students will feature their work on a course website and build a digital identity that will last beyond the class. The course does not assume any multimedia background. No matter what careers students plan to pursue, they will develop the skills and tools associated with global communicators.

Methodology

The course will focus on multimedia writing and production techniques against the backdrop of studying the latest trends in digital media-making.

Academic Concept

- The course will pay close attention to the mechanics of good writing: grammar, spelling, punctuation, precise word choice, strong sentences and well-organised paragraphs and stories
- Comprehension of digital best practices and establishment of a networked course community

Learning Outcome

By the end of the course, students will be able to:

- Produce effective audio and video multimedia that is well written, incorporating quality sound and video, and communicates clearly with ease
- Understand the use of cell phones and open-access software to create professional multimedia content
- Create a social media campaign that will sustain communication efforts beyond the end of the course
- Conduct interviews and record stories that engage listeners and viewers

Tangible Outcome

Students will develop the knowhow to create effective multimedia and a portfolio of digital content to demonstrate their skills for internships, jobs and future careers. They will have the option of featuring their digital profile and abilities on a website.

Recommended for

Students interested in learning to use Multimedia in day to day life.

Instructor

Sheila Tefft is a 2019 Fulbright scholar at Ahmedabad University, an international multimedia journalist and a member of the faculty at Emory University in Atlanta. Rajiv Chandra, a former television and newspaper journalist, will assist in teaching the course.

Ocean Explorers

ISP097

Abstract

Our planet Earth is 70% water and 30% land. In fact, instead of planet Earth, it should rather be called planet Water. Of the 70% water cover on the Earth, more than 90% is actually marine water or salt water in oceans. Seas form a complex web of ecosystems holistically known as Marine Ecosystems. There is more life in these ecosystems than anywhere on the land, and a lot of it is unique, unexplored and unknown. The oceans are a significant source of oxygen for our planet and are instrumental in the storage of carbon dioxide. They are not only home to aquatic animals but also to innumerable plant species. This course is designed to give a glimpse of these exclusive and exceptional ecosystems and how they are important for the survival of mankind.

Methodology

One of the most important methods of learning in this course is experiential and hands on learning in the form of a field visit to a coastal area where students can explore, discover and learn. The other method that will be employed is activities, informative movies, documentaries and group discussions. The students will learn the basics of Geographic Information system (GIS) through GIS application like Quantum GIS with associated activities. This course includes a three day trip to Jamnagar in Gujarat.

Academic Concept

- Introduce students to the principal coastal and oceanic ecosystems
- In each ecosystem, students will explore how environmental variables affect biological communities and ecological interactions
- Introduce topical research issues on biodiversity, global climate change and the evolution of life in the oceans. Introduce GIS mapping

Learning Outcome

- Generate awareness, interest and passion for conservation of oceans and seas among youth
- Study human impact including urban habitations, industrial growth, ports and urban livelihood activities on coastal ecosystems
- Gain an understanding of the local and global context of coastal/marine issues, the differences and similarities in cross country approaches for addressing these issues
- Develop skills among students in research, documentation and monitoring of marine biodiversity. Basic understanding of map preparation using GIS mapping system

Tangible Outcome

- GIS based maps
- Short documentary on different aspects of marine ecosystems
- Algal cards for preservation and identification of marine algae
- Photographic posters with key messages of conservation

Recommended for

Students interested in marine life and nature.

Instructors

Shefali Naik is an Assistant Professor at School of Engineering and Applied Sciences, Ahmedabad University. She is an author of the book Concepts of Database Management System. She has presented and published papers in national and international conferences and journals. She has a deep interest in Wildlife and Bird Watching.

Janki Teli is a naturalist working in the field of wildlife research, conservation and education for the last 15 years. She has a passion for interacting with students and spreading the message of nature conservation.

Scenes from the History of Science

ISP029

Abstract

Some of the most popular ideas in the layperson's imagination of science come with a strong visual component. Whether it's Archimedes jumping out of his bathtub crying "Eureka" or the apple falling on Newton's head, striking visuals help us understand and retain concepts. But are these incidents of the falling apple or the streaking philosopher actually true? How does one determine whether an account that has been passed down over generations is historically accurate? How does one go about finding out more about how scientific ideas really came about? In Scenes from a History of Science we'll learn to think historically about science, and also about how to use the dynamic art form of comics to communicate scientific concepts in a simple manner.

Methodology

A few introductory sessions on the basics of historical thinking and sketching, followed by a hands-on workshop where students will choose an episode or theme from the history of science, read up on the subject, and explain what they have understood through sequential art.

Academic Concept

Students will learn to think historically about science, how to conduct basic historical research, and how to communicate ideas through the medium of sequential art.

Learning Outcome

Think historically about science, conduct basic historical research, understand and communicate scientific concepts, basic figure drawing, basic perspective drawing, cartooning/exaggeration and make clear and effective sequential art

Tangible Outcome

Each student will produce a 4-6 page comic for the final project.

Recommended for

Students with an interest in exploring the artform of comics as a way to understand and communicate scientific and historical ideas.

Instructors

Aparajith Ramnath is an Assistant Professor at Ahmedabad University, where he is a part of the School of Arts and Sciences as well as the Amrut Mody School of Management. He is a historian of science, technology and business. His first book, The Birth of an Indian Profession (a history of engineers in pre-Independence India) was published in 2017 by Oxford University Press.

Anupam Arunachalam is a writer, illustrator and cartoonist. He has worked with Tinkle Magazine, Amar Chitra Katha, Mint, Forbes Life, Kokaachi, Doctors without Borders, and Johnson and Johnson. His latest book, Tooth and Nail, Fur and Scale- a collection of illustrated short stories about fantastic creatures from Indian myth and legend was published in 2017 by Penguin Random House India.

Scribal Culture in Practice and Theory

ISP098

Abstract

What if you had to make your own pen before you sat down to write? Or, what if you had to find a block of stone before you could express your ideas? This course explores the intersection between the practice and theory of writing in premodern India. In this course, students will make their own traditional writing instruments while studying about language and culture. Students will engage in hands-on activities with traditional materials such as bamboo reeds, make their own ink, and try their hand at inscribing rock-faces. Students will also study the relationship between language and culture and learn about the methods of studying inscriptions and manuscripts in premodern India.

Methodology

Class meetings consist of discussion of the readings as a group and hands-on work with the materials. As the course progresses we will focus more on hands-on activities and completion of projects. Specifically, class meetings will consist of: (a) Discussion on the history of writing, language, and culture in premodern India (based on readings) (b) Learning about how to make traditional writing instruments (e.g., bamboo pen, tea-based ink) (c) Practice making writing instruments in groups and individually (d) Student presentations to the class about work-in-progress.

Academic Concept

This course aims to think about writing in a holistic manner by combing practical and theoretical aspects. As an interdisciplinary course, it encourages students to engage with the theoretical aspect of language (how do we express ideas aesthetically?) and the practical aspect of language (how can language be presented on stone?). Through this exploration, students will be able to place the practice of writing in a wider context by learning about it as it was practiced in the past.

Learning Outcome

- Acquire holistic knowledge about writing in premodern India
- Conceptually link theory of writing with the practice of making writing instruments
- Understand and communicate concepts about the history of writing, language, and culture
- Develop basic carving and craftmanship skills

Tangible Outcome

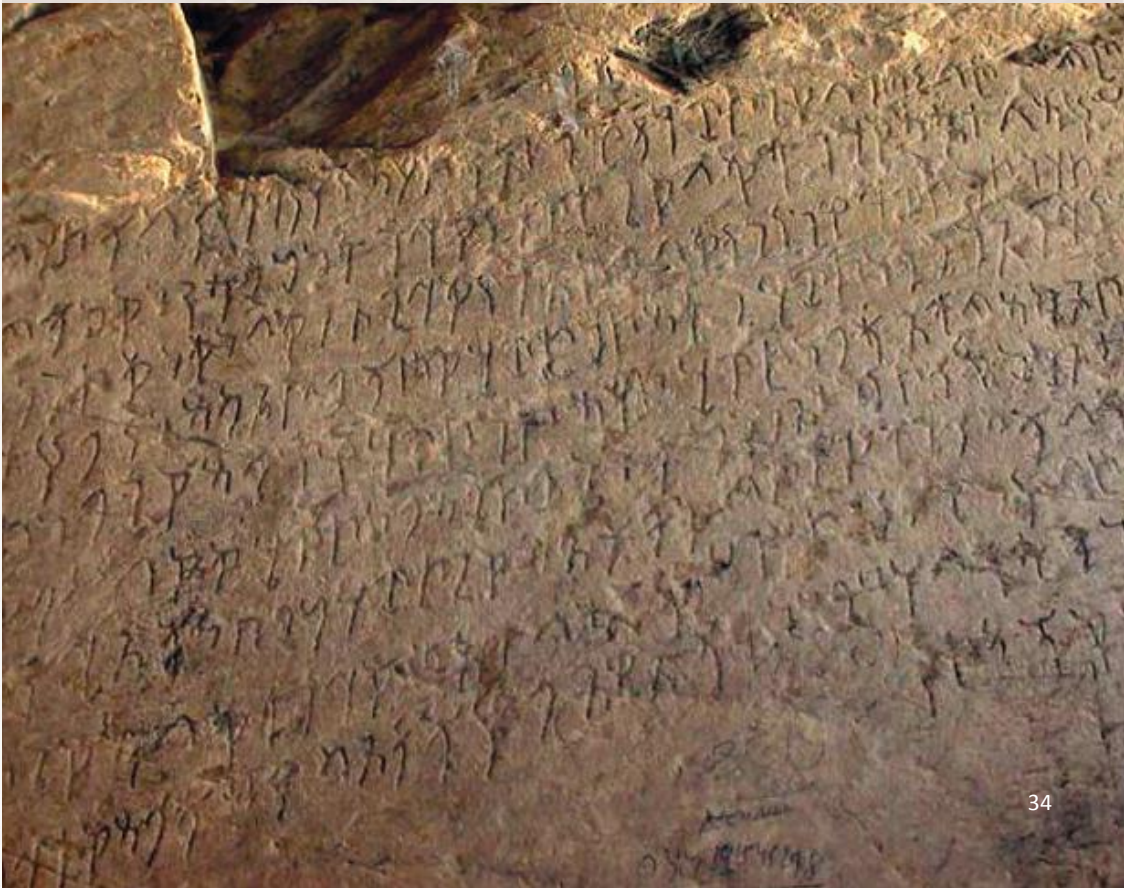
- Bamboo pens
- Hand-made ink
- Traditional paper
- Rock inscriptions
- Students write their own short compositions on paper and rock

Recommended for

Students interested in culture, languages and their evolution

Instructor

Samuel Wright is an Assistant Professor in the Division of Humanities and Languages at Ahmedabad University. He is an intellectual historian of South Asia with particular interest in the circulation of ideas, the history of knowledge, and linkages between philosophical arguments and social contexts. His research and publications engage with questions that span several early modern archives, especially those in Sanskrit and Bengali.



The Politics of Food

ISP018

Abstract

Eat at McDonalds or a local vada pau centre? Organic or Conventional? Restaurants or Home cooked? Vegetarian or Non-Vegetarian? Food is something none of us can live without. Food and eating helps define who we are and our relationship with other people and places. Where does our food come from? Where do we eat it? How does food and eating shape our social relationships and our understandings of environment and place? These questions are fundamentally social, cultural, economic and geographic in nature. Exploring how food is grown and consumed, leads to a deeper understanding of societies and environments and their complex relationships. Do we think about sustainability when we make food choices? This course will provide students with an overview of our world's food system and its many linkages from farm to fork..

Methodology

Each thematic course will be taught through classroom Socratic discussions, movie screening, case study analysis, role-play, debates and other such activities. It will include hands-on experiential learning, research and a field trip.

Academic Concept

The programme curricular will apply an interdisciplinary approach to the study the issues of food and sustainability. It will reveal the links between agroecology, agronomy, anthropology, biology, business, economics, nutrition, philosophy, policy, sociology and technology to discover how the individual, the community and society relate to food in India and around the world.

Learning Outcome

- Students understand more about where their food comes from and a range of political, economic, social and cultural dimensions of food production, distribution, and consumption from the local to global scales
- Students understand more about how food carries intrinsic meanings beyond nutrition
- Students understand the social meanings and the structural relations of power regarding the production, distribution, preparation and consumption of food
- Students develop a sociological understanding of the structure of a globalised, industrialised agriculture and food system and the impact on farmers, consumers and communities
- Students understand the organisation of a global food system that links the production and consumption of food; particularly how it generates abundance for some and famine for others
- Students acquire an understanding of alternative narratives to the current responses to social problems regarding food and agriculture
- They learn to work with their hands, tend a garden and grow their own vegetables

Tangible Outcome

The students will develop a community vegetable garden as an integral part of the programme Educate and expand knowledge about growing sustainable vegetable, herbs, and a variety of cultural foods and flowers, Gardening processes, Natural environments and organic practices,

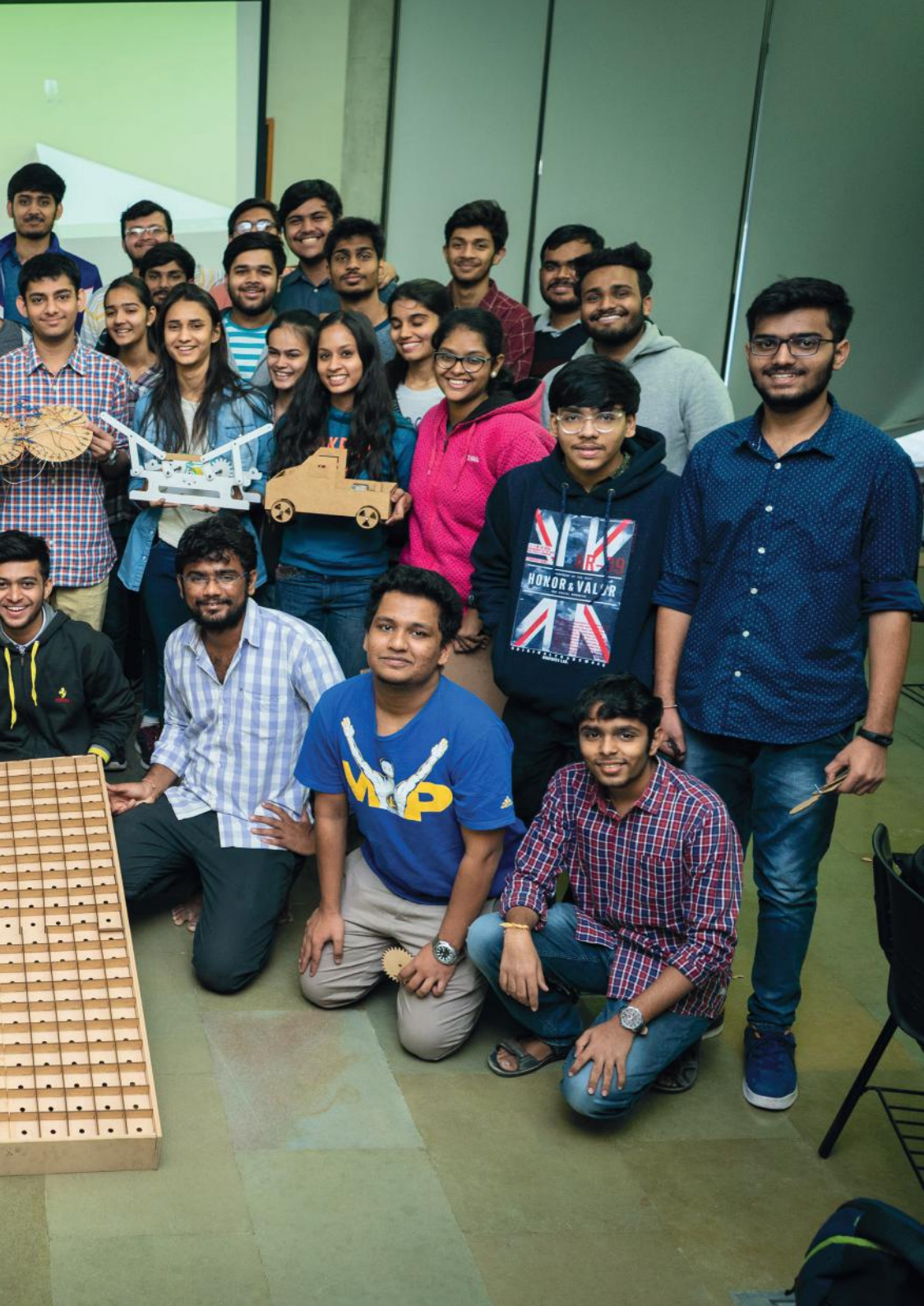
Recommended for

Everyone who eats! Students interested in taking charge of their wellness and health

Instructor

Purvi Vyas is an Organic Farmer, Food Politics Professor and Environment Consultant. She has a Master's in Environmental Management from the University of Western Sydney and is associated with various NGOs working on sustainable development and lives on her organic farm in Matar, 45 kilometres from Ahmedabad, which is 70-80% self-sustainable. She teaches everything about food - the Food system, the politics behind food choices defined by the market and the impact of these choices on the environment at universities.


UNITED


HONOR & VALOR

Independent Study Period embodies how we at Ahmedabad University envision education: interdiscplinary, hands on, learner oriented, fun yet deeply rooted in theory. Classrooms turn into studios and thinking out of the box is replaced with reimagining the box altogether. ISP is one of the happiest and most creative periods for learners on campus.

Ahmedabad University

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