

EMPOWER. NURTURE. INSPIRE.

# M.SC. ENVIRONMENTAL SCIENCE

WPU School of Science and Environmental Studies



## MIT World Peace University (MIT-WPU)

MIT World Peace University (MIT-WPU) is a prestigious world-class institution for higher education in India, boasting a remarkable 40-year legacy dedicated to fostering excellence in academics. With a global alumni network comprising over 100,000 professionals, MIT-WPU has consistently delivered outstanding educational outcomes. The institution offers over 150 undergraduate and postgraduate programmes that are thoughtfully designed to strike a balance between theoretical foundations and practical application. The pedagogical approach prioritises experiential learning, empowering students to translate knowledge into real-world skills. This is facilitated through immersive internships and invaluable mentor-mentee insights that serve as catalysts for personal and professional growth.



## **University Highlights**

- 100,000+ Alumni Globally.
- 1600+ Companies visited the Campus.
- International Students from 30 COUNTRIES.
- Merit-Based Scholarship worth RS. 50 CR.
- Highest University Package: RS. 51.36 LAKHS CTC.
- Outcome based learning aligned with Bloom's taxonomy.
- Experiential learning throug RURAL, NATIONAL & INTERNATIONAL Immersion and Co-creation Programmes.
- Lateral learning through events like RIDE (Research, Innovation, Design, Entrepreneur-ship), SLDP (Social Leadership Development Programmes) & more.
- The curriculum is taught by international academicians, industry practitioners, and alumni.
- Practical and real-life experience with Industry sponsored Capstone projects, Internships,
   & Seminars.
- Holistic development through participation in Yoga, Patriotism, Peace, Agriculture & Spiritual programmes.





## Why an M.Sc. Environmental Science Programme at MIT-WPU?

MIT-WPU offers an M.Sc. in Environment Science programme that focuses on environmental preservation & sustainability education, equipping students for multifaceted roles in environmental research, conservation, ecosystem management, societal development, and policy formulation. Students delve into a comprehensive array of subjects, ranging from evolutionary biology, biodiversity, climate change, natural resource management, environmental biotechnology, and socioecology, to environmental legislation, conservation biology, advanced statistics, and more. The curriculum encompasses skill-based courses, including data analysis, analytics, remote sensing-geoinformatics, and hands-on training in software for Life Cycle Assessment (LCA), Environmental Impact Assessment (EIA), and Environmental Management Plan (EMP). It offers a choice of two specialisations, 'Wildlife Conservation' and 'Industrial Sustainability,' in the second year, designed to empower students to explore their areas of interest deeply and become proficient in critical subjects such as conservation planning, artificial intelligence for conservation, green auditing, energy conservation, and corporate social responsibility (CSR). Graduates of this M.Sc. in Environment Science degree programme emerge not only with a deep understanding of environmental science but also gain practical exposure, ensuring they are well-prepared for the complexities of their careers.



This programme encompasses soft-skill development, instilling science communication, project management, and entrepreneurial innovation to prepare students to be environmental leaders of the future, enabling them to make a meaningful impact on the environment, and ensuring the health and sustainability of the planet for generations to follow.

### **SPECIALISATIONS**



WILDLIFE CONSERVATION



**ENVIRONMENTAL REGULATIONS** 



INDUSTRIAL SUSTAINABILITY

# WPU School of Science and Environmental Studies

WPU School of Science and Environmental Studies focuses on delivering exceptional education in the natural sciences. Within this school, the Departments of Mathematics and Statistics, Physics, Chemistry, Biology, & Environmental Studies offer meticulously crafted undergraduate, postgraduate, and doctoral programmes, each endowing students with a robust foundation in the core principles and concepts of these disciplines. The school's curriculum is thoughtfully structured to encompass both theoretical knowledge and practical application, emphasising hands-on learning through laboratory work, projects, and invaluable research opportunities. Guided by a distinguished faculty consisting of renowned academicians and corporate leaders, students are assured of a world-class standard of education, benefiting from their wealth of experience and knowledge. A hallmark of the school is its strong focus on research and interdisciplinary and multidisciplinary exploration. This approach allows students to delve into their passions, gaining hands-on experience in cutting-edge research, and equipping them with the academic, professional, and research acumen demanded in contemporary workplaces. WPU School of Science and Environmental Studies nurtures students to be well-prepared, excel in their chosen careers, and become leaders driving innovation and growth within the scientific community.

## Department of Environmental Science

The Department of Environmental Science at MIT-WPU has a resolute mission to cultivate the professionals of tomorrow, individuals who are dedicated to contributing towards the betterment of our planet through informed decision-making and active engagement in environmental preservation. The postgraduate programme is meticulously structured to impart students with a comprehensive understanding of the various facets of environmental science and conservation. It employs application-oriented pedagogies and offers a diverse range of electives, guest lectures, skill-enhancing modules, career assistance sessions, seminars, workshops, national and international tours, and more. Its well-rounded curriculum is designed to provide students with a truly experiential & collaborative learning environment, coupled with invaluable industry exposure. The Department has forged collaborations with government agencies and non-governmental organisations, which pave the way for internships and hands-on projects. In the second year of the programme, students gain critical industry and research experience through internships and research projects, effectively.

## **Programme Highlights**

- Expert Faculty who are highly qualified, experienced, and actively engaged in research.
- Global alumni network offering opportunities for collaboration, career advancement, and mutual support.
- Multidisciplinary and holistic teaching approach that integrates diverse disciplines.
- A mentor-mentee system to guide and support students.
- Regular visits to industries, enlightening guest lectures, impactful seminars, and practical workshops by industry stalwarts.
- Over 100 student-led clubs catering to diverse interests, from technology to drama.
- Experiential learning through fieldwork, and national and international study tours for hands-on learning experiences.
- Focus on entrepreneurship through funding, mentoring, and networking within the MIT-WPU Pune Technology Business Incubator (TBI).
- State-of-the-art laboratories that facilitate invaluable hands-on experience.
- Scholarships based on merit to recognise and reward excellence.
- A dedicated Centre for Industry-Academia Partnerships (CIAP) that ensures internships and placements with renowned organisations.



## Dean's Message

We welcome young minds to WPU School of Science & Environmental Studies at MIT-WPU. The number of career options available to the students of Environmental Studies has grown exponentially as technology and industries have advanced. From vast opportunities in research to opportunities in innovation and technology, environmental studies provides a dynamic work environment rich in specialisations and opportunities to explore.

The faculty members at the Department of Environmental Science work hard to achieve the mission of imparting innovative skills and value-based quality education through academic excellence and research experience at leading institutions in India and abroad.

The various fields in Environmental Sciences are highly interdisciplinary and backbone of the environmental well-being of any country. Various industries need professionals in the field of environmental studies for several initiatives and projects. The M.Sc. Environmental Science is a highly specialised & interdisciplinary programme which aims at developing students' skill sets and making them highly competitive and ready for the industry.

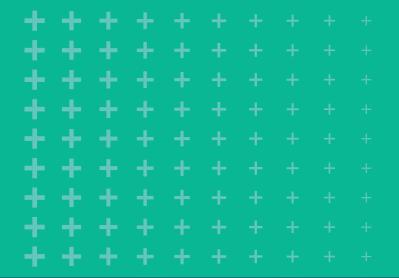
Understanding the industry and how to excel in it after earning a degree are critical components of future success. This is where we help our students improve their skills & domain knowledge. This has resulted in our students being placed in top companies with competitive salaries.

At MIT-WPU, we lay the groundwork for you to grow & expand your understanding & knowledge in your career. We provide our students with industry internships as well as in-house research projects based on current industry and societal challenges.

Our students publish research articles and present their work at international conferences. Furthermore, we train and mentor our students in the areas of innovation and entrepreneurship. This has resulted in successful university -sponsored projects in Hackathons, which have resulted in start-ups and patents.







## Academic Partnerships: Making Learning Global



WPU School of Science and Environmental Studies at MIT-WPU is dedicated to offering a truly global education experience through strategic partnerships with esteemed international universities. These collaborative programmes break down geographical barriers, promoting the exchange of diverse disciplinary approaches from around the world. MIT-WPU nurtures and fortifies global relationships, fostering intercultural networks for its students. This commitment is manifested through various avenues, including student and faculty exchange programmes, research collaborations, summer and winter programmes, and several other enriching activities.

WPU School of Science and Environmental Studies at MIT-WPU has collaborated with the following international universities:



### M.SC. ENVIRONMENTAL SCIENCE

The M.Sc. in Environmental Science programme at MIT-WPU equips students with an in-depth understanding of environmental research & conservation, ecosystem management, societal development, and policy formulation. The programme covers comprehensive insights into a wide spectrum of subjects, including evolutionary biology, biodiversity, climate change, natural resource management, environmental management, environmental biotechnology, socioecology, environmental legislation, conservation biology, advanced statistics, industrial development and sustainability, environmental management planning, environmental impact assessment, life cycle analysis, and advanced RS-GIS.

The programme goes a step further by including skill-based courses in data analysis and analytics, remote sensing-geoinformatics (RS-GIS), and hands-on training in software for Life Cycle Assessment (LCA), Environmental Impact Assessment (EIA), and Environmental Management Plan (EMP).

In the second year, students can opt for one of three specialisations:

#### **WILDLIFE CONSERVATION:**

This specialisation encompasses core topics in conservation ecology and wildlife research methods, encompassing aspects like conservation planning, artificial intelligence for conservation, field sampling methods, and action research.

### INDUSTRIAL SUSTAINABILITY:

This track covers vital subjects like the localisation of Sustainable Development Goals (SDGs), Corporate Social Responsibility (CSR), and environmental management planning, including areas such as green auditing, energy conservation, and CSR initiatives.

### **ENVIRONMENTAL REGULATIONS:**

Students opting for this specialisation study aspects of environmental regulations for industries and organisations. The specialisation encompasses subjects such as environmental laws and policies, environmental education and awareness, environmental health and safety management, and environmental ethics.

Students have the option to choose a 'General Track' specialisation, which combines modules from Tracks 1 and 2.

The programme further offers a one-year exit option after the first year, awarding students a Postgraduate Diploma in Environmental Science. Complementing the core coursework, the programme also integrates soft-skill development courses, encompassing science communication, project management, and entrepreneurship innovations, rendering it a truly holistic educational experience.

#### **CAREER OPPORTUNITIES**

- Environmental Consultants
- Environmental Scientists
- ESG Managers
- Wildlife Researchers/Conservationists
- Carbon Analyst
- Biodiversity Analys

- Environmental Journalists
- CSR Managers
- Lecturers
- EIA & LCA Consultant
- Nature Educator







# **Groundbreaking Discovery**By MIT-WPU Students

MIT-WPU researchers made a momentous breakthrough by unveiling the 'Armageddon Reedtail - Protosticta Armageddonia', a hitherto undiscovered damselfly species found in the Southwestern Ghats of Kerala. This revelation casts a spotlight on the pressing need for climate action, underlining the stark ecological challenges driven by habitat loss and climate change. The discovery is a powerful wake-up call for global leaders, urging them to confront the critical issues of global warming and its devastating effects on biodiversity.

The official documentation of this newfound species has been recorded in the distinguished International Journal of Odonatology, a publication affiliated with the Worldwide Dragonfly Association based in the United States. Furthermore, this discovery has been meticulously registered with the Zoological Survey of India's Pune office, underlining its significance in the scientific community.

This groundbreaking discovery marks a significant milestone in the realm of environmental science and conservation, signifying the critical crossroads at which our planet currently stands. It resonates not only within the scientific community but with every individual concerned about the future of our world.





### Faculty



DR. PRASAD KULKARNI Ph.D.

Programme Director & Assistant Professor Department of Environmental Studies

#### **EDUCATION**

- M.Sc. Environment Science (2005), Bharati Vidyapeeth, Pune
- Doctor of Philosophy (Ph.D.) Environment Science (2018), SPPU, Pune

Dr. Prasad Kulkarni, Ph.D., is the Programme Director at MIT-WPU, Environmental Studies. With 18+ years of diverse experience, he specialises in climate action and sustainability. An M.Sc. and Ph.D. holder, he's a dedicated educator and a recognised Fellow of UNU-INWEH. Engaged in impactful initiatives, including the France-India 24H Chrono Entrepreneurship Challenge.

### Professional & Research Experience: 18+ years in multidimensional fields

#### MEMBERSHIP AND RECOGNITION

- Fellow of UNU-INWEH (2014)
- Fellow of DST-NRDMS (2016)
- Member: IUCN-CEC-1167
- Mentor of Change Atal Innovation Mission,
   NITI Aayog, Govt. of India
- Member: Alliance Française de Pune

- Life Member of Indian Society of Remote Sensing (ISRS)
- Selected for France India 24H Chrono Entrepreneurship Challenge IISER Pune: 1st & 2nd December, 2017



DR. PANKAJ KOPARDE Ph.D.

Programme Coordinator & Assistant Professor Department of Environmental Studies

#### **EDUCATION**

- M.Sc. Biotechnology (2010), IBB, Savitribai Phule Pune University
- Ph.D. in Ecology and Evolution (2019), Manipal Academy of Higher Education (MAHE) in collaboration with Salim Ali Center for Ornithology and Natural History (SACON) and National Center for Biological Sciences (NCBS), TIFR Bangalore
- PGD in Data Science (2022), RISE WPU & KPMG

Dr. Pankaj Koparde, Ph.D., is the Programme Coordinator at Environmental Studies, specialising in Urban Ecology and Conservation Science, particularly owls and dragonflies. Leading citizen science projects and honoured as a DST Young Scientist, he contributes to IUCN and presents impactful research globally. His lab, Chatur Ullu Lab, focuses on dragonflies and owls.

#### **PUBLICATION STATISTICS**

- National Publications: 06
- Popular Science Articles: 10
- Book Chapters: 01



DR. SOMA MISHRA Ph.D.

Assistant Professor

Department of Environmental Studies

Dr. Soma Mishra, Ph.D., is an Assistant Professor at Environmental Studies with 12+ years of experience. Specialising in environmental engineering, she leads European Commission-funded projects on Lake/Riverbank filtration. Her research focuses on emerging contaminants in water, sustainable wastewater management, and indoor air pollution remedies. Beyond academia, Dr. Mishra is the founder of SustainOEarth, addressing water and waste management for small-scale industries and supporting women's entrepreneurship in rural areas.

Internships & Placements: Paving Pathways to Success



# **Top Recruiters**Designed For Success





































The MIT-WPU Placement Cell, known as the Centre for Industry-Academia Partnerships (CIAP), opens doors to multiple career opportunities for graduates. With a consistent track record of high placements, the cell connects students with prestigious firms, providing career guidance and preparing them for the professional arena. Complementing this, the eight-week Summer Internship, from late April to mid-July, integrates classroom knowledge with hands-on experience. This mandatory programme propels students into professional ecosystems, providing practical insights crucial for their careers. MIT-WPU maintains robust connections with over 250 industries in India and abroad. Furthermore, it has established Memorandums of Understanding (MOUs) with various government organisations and foreign educational institutions. This extensive network proactively assists students in securing internships, pursuing campus placements, nurturing entrepreneurial endeavours, and advancing their higher education pursuits. Together, strategic placements and experiential learning define the institution's commitment to shaping well-rounded, industry-ready professionals.



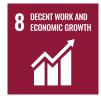
SUSTAINABLE GENALS
DEVELOPMENT GENALS





































## **Scholarships**

MIT-WPU offers scholarships to meritorious students based on their performance in National/State Level Entrance tests and the MIT-WPU CET Examination for the academic year 2024-25. These scholarships are applicable throughout the programme\*.

### Merit Scholarship Categories:

- DR. VISHWANATH KARAD MERIT SCHOLARSHIP AY 2024-25
- MIT-WPU MERIT SCHOLARSHIP AY 2024-25
- SCHOLARSHIPS FOR ELITE SPORTS PERSONS AY 2024-25
- SCHOLARSHIP FOR WARDS OF MIT-WPU/MAEER'S STAFF MEMBERS/MAEER's Staff Members

### For more information, please visit: mitwpu.edu.in/scholarships

#### \*Terms & Conditions:

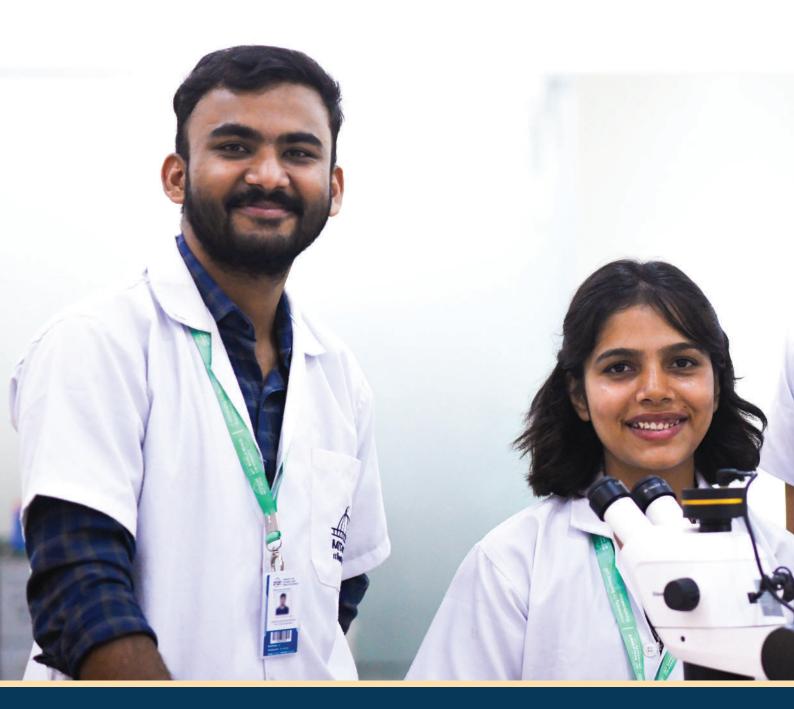
- Scholarships are granted on a First Come First Serve basis.
- Scholarships are awarded as fee adjustments.
- To maintain the scholarship throughout the programme, students must maintain a minimum academic score of 8 CGPA across all semesters, attendance of at least 80%, and a clean disciplinary record.
  - a) a minimum level of academic score has to be maintained at an 8 CGPA across all semesters.
  - b) attendance is to be maintained at a minimum of 80%.
  - c) there should be no disciplinary action against the student.

### M.SC. ENVIRONMENT SCIENCE PROGRAMME

Scholarship for	Dr. Vishwanath Karad		MIT-WPU Scholarship I		MIT-WPU Scholarship II	
AY 2024-25	Scholarship (100%)		(50%)		(25%)	
Name of programme/ Specialisation	Graduation Aggregate Score	XII Aggregate Score	Graduation Aggregate Score	XII Aggregate Score	Graduation Aggregate Score	XII Aggregate Score
M.Sc. Environment Science	85% &	85% &	80% &	80% &	75% &	75% &
	Above	Above	Above	Above	Above	Above

Note: Student will have to qualify both the criteria i.e. Graduation Aggregate Score and 12<sup>th</sup> Aggregate Score for availing the scholarship.





## **Eligibility and Selection Process**

### **ELIGIBILITY CRITERIA**

Minimum 50% aggregate score in 3/4-year graduation from UGC approved University or equivalent (at least 45% marks, in case of Reserved Class category candidate belonging to Maharashtra State only).



### **SELECTION CRITERIA**

The selection process for the programme is based on MIT-WPU CET PI 2024 score: Personal Interaction Components:

- a) Overall Awareness of the subjectb) Current affairs and c) Interest of the student

### **Testimonials**

## Here's What Our Students Have To Say

The M.Sc. programme in Environmental Science offered at the Department of Sustainability Studies, MIT-WPU has a multidisciplinary approach. The field and project-oriented teaching allow gaining knowledge through practical experiences which is certainly one of the most unique features of the programme.

**SOURAV DUTTA** 

M.Sc. programme in Environmental Science offered at the Department of Sustainability Studies, is a transdisciplinary programme and one of the finest courses I have seen. My personal experience has been full of learning and exploring the course in this 2 year journey. I learnt through actually making projects, writing assignments and interacting with experts. I would highly recommend the programme to anyone who wants to learn in-depth about Environmental Science.

**DIVYANSHU PAWAR** 

I've always been interested in nature and the environment and the M.Sc. environmental science of MIT-WPU holistically bring together all aspects of environment and sustainability in a very strong curriculum. While the course covers all the basic concepts that can be learned by people from all backgrounds it also teaches us the practical aspects of environmental conservation & sustainable living. The course covers traditional and modern features beautifully and provides us with numerous opportunities to implement our learnings.

DR. PRERNA CHANDAK





## Events @ MIT-WPU



## Bharatiya Chhatra Sansad Empowering Youth for Change

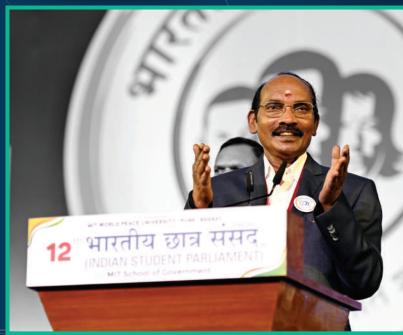
A brainchild of Shri. Rahul V. Karad and flagship initiative of MIT-WPU, Bharatiya Chhatra Sansad (BCS) is a nationally recognised initiative empowering youth in India's political landscape. Serving as a non-partisan platform, BCS engages young minds in debates, discussions, and addresses by distinguished personalities, fostering awareness of the socio-political landscape. Acknowledging the contributions of young leaders, sarpanches, and activists, BCS, with participation from 25,000 institutes nationwide, empowers youth to actively shape India's future in governance and administration.

## R.I.D.E. Igniting Innovation and Entrepreneurship

R.I.D.E. stands out as a unique educational initiative by MIT-WPU, fostering entrepreneurship beyond academics. This 5-day event, attracting over 10,000 students, showcases cutting-edge research, design thinking, and innovation across diverse domains. With 100+startups and 50 venture capital experts, R.I.D.E. provides a real-world startup context, encouraging unconventional thinking and exposing participants to transformative dynamics and market trends.









### **Rural Immersion** Programme

The rural immersion programme of MIT-WPU provides students with a unique educational experience. Through village visits, students engage in hands-on projects such as optimising irrigation, water conservation, waste recycling, and solar power integration. This immersive learning develop critical thinking, problem-solving skills, and community awareness, fostering a profound understanding of rural dynamics and innovative solutions.









### Other MIT-WPU Events

- Design Xpo
- Aarohan
- Kala Mehfil
- Hackathon
- Media and Journalism
- Abhivyakti
- ◆ TEXEPHYR
- Tesla
- Techogenesis
- RoboCon
- Science Expo

- World Parliament of Science, Religion and Philosophy
- Bharat Asmita National Awards
- National Women's Parliament
- National Conference on International Symposium on Law and Peace
  - Vidhi-Manthan
  - Peace Marathon
  - Sports Summit
  - Social Leadership Development
  - Programme (SLDP) And many more...

## MIT-WPU Student Clubs

MIT-WPU is a vibrant hub for student involvement, boasting over 100 clubs spanning cultural, social, sports, co-curricular, and NCC/NSS categories. Such student-led clubs provide students with a platform for active participation, connection-building, and leader-ship skills development.

- The Innovation Club is a hub for entrepreneurial and innovative events and workshops
- The Art and Photography Club brings together aspiring artists for creative expression
- The Sports Club, orchestrating spirited sporting events and activities
- The Cultural Club celebrates diversity and fosters cultural exchange
- Aatman- The sole Mental Health Club led by Psychology students, promoting well-being
- Team Dart- A motorsports team participating annually in the Rally Car Design Challenge (RCDC)

These clubs excel in national and international competitions, amplifying the dynamic MIT-WPU experience, nurturing leadership, and fostering holistic personal growth. Active participation in these diverse student clubs empowers students to optimise their time, enhance their skills, and contribute purposefully to the community.





















## Life @ MIT-WPU























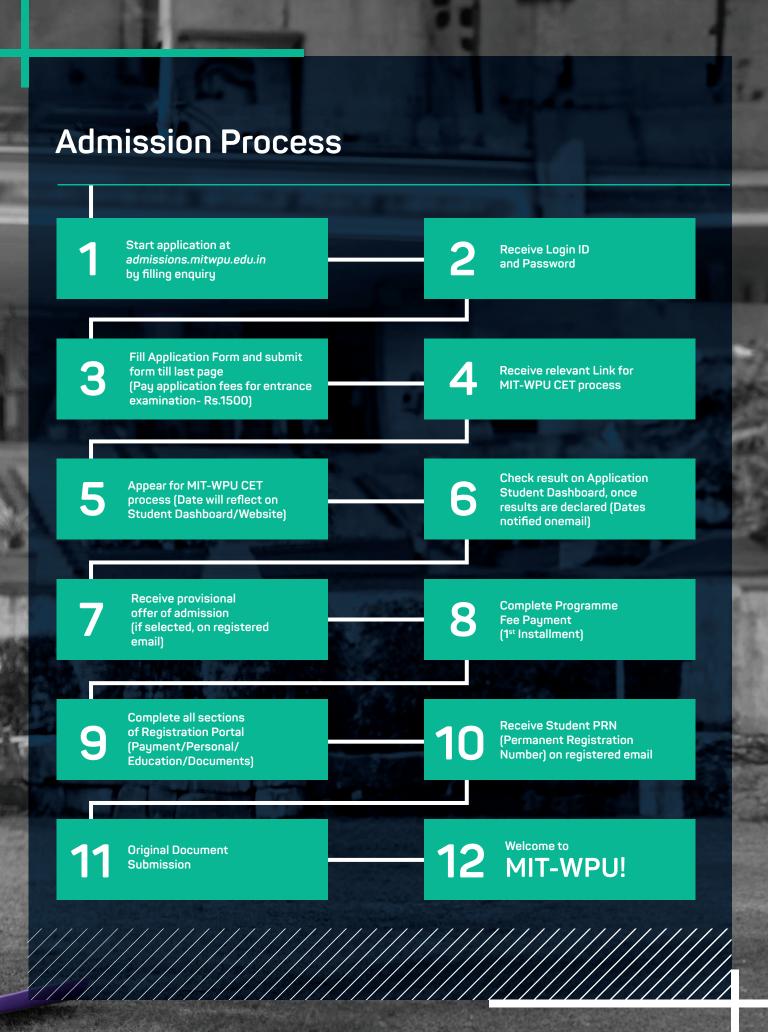
## Peace Studies: Fostering Holistic Growth

Understanding the importance of inner and social peace and conflict management skills is crucial in today's world. MIT World Peace University has adopted UNESCO's core vision of 'Building Peace in the Minds of Young Men and Women' as its guiding ethos.

The university offers a mandatory course of peace studies that lays the foundation for spiritual peace and harmony. It explores new ideas and practices from various cultures to tackle the challenges of global peace and sustainable development. The university also plans to introduce an advanced postgraduate degree programme in Peacebuilding and Conflict Management that offers state-of-the-art learning opportunities to study traditional and contemporary pedagogies of peacebuilding and conflict management.

The main objective of this course is to prepare students to become agents of social change and genuine global citizens. It trains them in non-violent communication to promote peace and prevent violence in communities and workplaces. Furthermore, the peace studies module also acquaints students with diverse yoga practices that enrich their cognitive prowess and information base, refining critical thinking and enhancing their overall personality. This interdisciplinary course, developed with input from scholars and practitioners worldwide, helps students build knowledge of India's spiritual and cultural ethos. Additionally, the course covers essential conflict management knowledge and skills that are in high demand in today's corporations.









Call: +91-20-71177137

WhatsApp: +91-9881492848 (Message only)

Email: admissions@mitwpu.edu.in

Website: mitwpu.edu.in

Address: MIT-WPU, Kothrud, Pune.

Scan to Apply



Disclaimer: This brochure provides general information about the programmes. Dr. Vishwanath Karad MIT World Peace University Pune (MIT-WPU) reserves the right to revoke, modify, add or delete one or more of the terms and conditions outlined in the brochure. MIT-WPU reserves the right to amend the provisions of the programme, eligibility, admission & scholarships without notification as & when deemed fit/appropriate due to any changed circumstances.