

Report On SDG 9: Industry, Innovation, and Infrastructure

Amity University Madhya Pradesh (AUMP) strives hard to address the issues of society at large, viz: natural calamities, climate change, food, healthcare, renewable & non-renewable energy resources, anthropological, linguistics, human resources, defense etc., through multidimensional research in AUMP, as sponsored by various government funding agencies such as DST, MPCST, SERB, ICMR, Creative Commons and DRDO.

Amity University Madhya Pradesh is a research and innovation driven university wherein faculty are expected to do quality research. Faculty members are motivated to publish research papers only in journals that are indexed in Scopus or Web of Science. Incentives are being provided to the faculty for those who publish quality research papers, carry out research projects and consultancy assignments, file/publish a patent etc.

1. Quality research and creation of new knowledge

The pursuit of Research and Innovation is being given utmost priority at Amity University Madhya Pradesh. The brilliant faculty members and students are consistently engaged in cutting-edge research projects covering areas of National & International importance. The major thrust areas of research at AUMP are Microbial Technology, Plant Tissue Culture & Infectious Disease, Bioengineering & Nanotechnology, Bio-resources, Biodiversity & Ecosystem Analysis, Environmental Pollution and Control Technology, Environmental Toxicology, Bioinformatics, Computational Biology, Protein base drug delivery system, Design and development of anti-HIV molecules, Nano carrier based drug delivery system, Depression and anxiety disorders, pain and inflammation (Preclinical), Drug discovery in neurodegenerative disorder, Phyto pharmaceuticals and siRNA delivery for Reproductive cancer (invitro and Invivo), Electronic Materials, Machine design, Material Science, Nano-Materials, Structural Engineering, Artificial Intelligence, Cyber Security, Data Mining and Machine Learning.

Pushing the boundaries of research, the University houses state-of-the-art cutting-edge research infrastructure and facilities. Presently the University has the following R & D Laboratories:

- Chemical, Biological, Radiological and Nuclear (CBRN) Mitigation Lab
- Biotechnology Lab
- Plant Tissue Culture
- Pharmaceuticals Lab
- Pharmacognosy Lab
- Psychometric Analysis Lab
- Animal Tissue Culture
- Microbiology Lab
- Human Anatomy & Physiology
- Garment Constructing
- Electronics Materials & Nano-

- Advanced Design Lab
- Machine Design Lab
- Pharma Chemistry Lab
- Pharmaceutical Analysis Lab
- Green House
- Textile Design Lab
- Audio Visual Recording & Editing Lab
- magnetism Lab
- Structural Engineering Lab
- Advanced Material Testing Lab
- Machine Room
- Pharmacology/HAP Lab
- Computer Labs
- Moot Court
- Fake News Detection Lab

2. DIRECTORATE OF RESEARCH & INNOVATION

The Directorate of Research & Innovation at Amity University Madhya Pradesh is responsible for providing research leadership through:

- Promoting and facilitating cutting-edge research
- Collaborative and inter disciplinary work.
- Building, and providing sufficient support for the community of innovative researchers.
- Enhancing research capacity in the University.
- Increasing internal and external research opportunities for faculty, research fellows and students
- Developing networks between the research centers and researchers in the public and private sectors, nationally and internationally.
- Transferring knowledge to society.
- Encouraging faculty members and students to publish quality research in journals of high repute.



3.

Research Projects Completed In 2021-22:

S. No.	Principal Investigator	Title of the Project	Rs. in Lacs of Project	Submitted to
1.	Dr. Anurag Jyoti	Detection and risk assessment of emerging multi-drug resistant typhoidal Salmonella in potable water and evaluation of gold nanoparticles as potential antimicrobial agents against them	4.48 Lacs	Madhya Pradesh Council of Science and Technology, Bhopal

Research Projects On-Going in 2021-22:

Principal Investigator	Title of the Project	Rs. in Lacs of Project	Funding Agency
Dr. Snehal Jani	Development of multifunctional magnetic Fe-Al nanocomposites for high temperature applications	4.5	Madhya Pradesh Council of Science & Technology, Bhopal
Dr. Naveen Sharma	Biotechnological approaches for camptothecin analogs production from cell suspension culture of <i>Nothapodytes nimmoniana</i> : An anticancer plant	9.55	MPCST Bhopal

Prof. (Dr.) R.S. Tomar	Bio-assisted synthesis of high potential nanoparticles and their antimicrobial efficacy evaluation against wound associated pathogens with special reference to Gwalior region.	7.95 Lacs	Madhya Pradesh Council of Science and Technology, Bhopal
Prof. (Dr.) Raghvendra Kumar Mishra	Large Scale development of ILP markers in pea (<i>Pisum sativum</i>) and their potential utility in mapping, diversity and transferability analysis	8.25 Lacs	DST – SERB, New Delhi
Dr. Alpa Sethi	Assessing the factors responsible for mismatch demand and supply of requisites skills among engineering aspirants with special reference to Madhya Pradesh.	16,56,600/-	DST New Delhi.

PATENTS Published in 2021-22

1. File No.: 202011001417

Title: A Dual Band Filtering Antenna
Date of Submission: 13/01/2020
Field of Invention: A Dual Band Filtering Antenna
Published: 16/07/2021

Name of Inventors : Dr. Raghavendra Sharma, Professor, ASET., AUMP

2. File No.: 202011041607

Title: A Microstrip Moisture Sensor
Date of Submission: 25/09/2020
Field of Invention: A Microstrip Moisture Sensor
Published: 01/04/2022

Name of Inventors: Dr. Pankaj Kumar Mishra, Professor, ASET, AUMP

3. File No.: 202011048239

Title: A System for Electric Moving Machine with Artificial Intelligence Interface
Date of Submission: 04/11/2020
Field of Invention: A System for Electric Moving Machine with Artificial Intelligence Interface

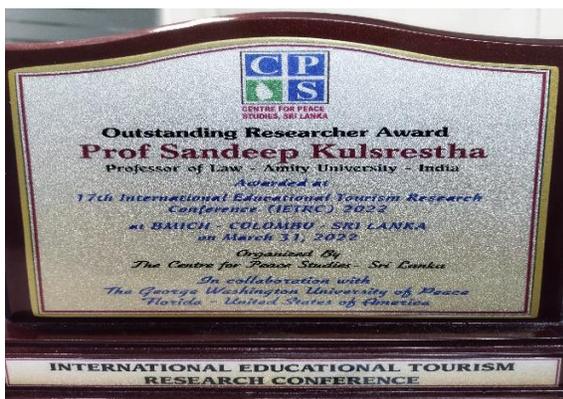
Published : 06/05/2022	
<u>Name of Inventors</u>	
Dr. Pankaj Kumar Mishra, Professor, ASET, AUMP	Dr. Raghavendra Sharma, Professor, ASET., AUMP

4. File No.: 202011055225	
Title: A User Interface for Health Monitoring Under Various Entities Through a User Device	
Date of Submission: 18/12/2020	
Field of Invention: A User Interface for Health Monitoring Under Various Entities Through a User Device	
Published: 24/06/2022	
<u>Name of Inventors</u>	
Dr. Pankaj Kumar Mishra, Professor, ASET, AUMP	Dr. Raghavendra Sharma, Professor, ASET., AUMP

Prof. (Dr) Kuldeep Dwivedi, Professor, Department of Environmental Sciences and Dr. Pankaj Mishra, Associate Professor, department of Physics, Amity School of Engineering & Technology, AUMP has been awarded have been awarded Individually with “Eminent Scientist Award & Cheque of Rs. 11000/-” in the discipline of: Advances in Tools and Techniques Including ICT for Sustainable Management of Agriculture, History, Arts, Sports, Health & Economy for his outstanding research paper during National Conference on Multidisciplinary Research Practice during held on 12th – 14th November 2021 by Koshambi Foundation at Jubilee Hall, Dr. Bhimrao Ambedkar University, Paliwal Campus, Agra



Dr. Sandeep Kulshrestha, Professor, Amity Law School, Amity University Madhya Pradesh conferred with “Outstanding Researcher Award 2022” by Centre for Peace Studies Sri Lanka on 31st March 2022 at Bmich, Sri Lanka.



Indexing Details of Research Papers in Journals: 2021-22

Research Papers	:	84
Web of Science	:	12
SCI	:	10
Scopus Indexed	:	52
UGC-CARE	:	3
Other Indexed Journal Publications	:	7

Indexing Details of Papers in Conference Proceedings

Papers in Conference Proceeding	:	59
Web Of Science	:	0
Scopus Indexed	:	55
UGC-CARE	:	0
Not Indexed	:	4

Indexing Details of Book Chapters

Book Chapters	:	24
Web of Science	:	1
Scopus Indexed	:	5
Not Indexed	:	18

Indexing Details of Books

Books	:	13
Web of Science	:	0
Scopus Indexed	:	1
Not Indexed	:	12

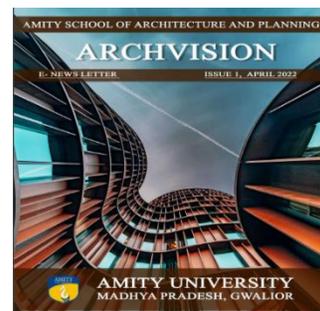
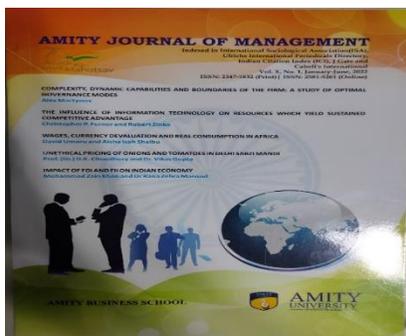
Scopus / Journal Published by the Amity University Madhya Pradesh

1. The University has published its Bi-annual print & online Research “Journal of Content Community and Communication (JCCC)” since 2015. It is a Scopus Indexed Journal.



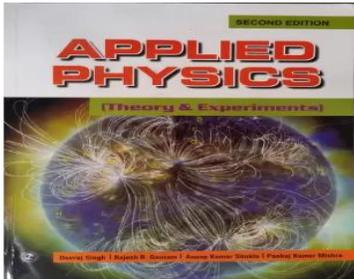
- The University has been publishing its Bi-annual print & online Research “Amity Journal of Management” since 2013. It is a Peer-reviewed Journal.

E-NEWS LETTERS @ AUMP





Publication of Books in 2021-22: Publication of Books by Faculty Members of AUMP in the Academic Year 2021-22

<p>Dr. Pankaj Mishra Professor, Amity School of Engineering and Technology, AUMP</p>	 <p>Applied Physics</p>
<p>Dr. Deepak Motwani, Dr. Ashok Kumar Shrivastava, Dr. Kapil Sharma, Associate Professor Dept. of CSE, ASET AUMP</p>	 <p>Principles of Machine Learning with Python</p>

