1. MNIT Jaipur

Research Centers:

MNIT hosts the **Center for Energy & Environment**, **Materials Research Center**, and **National Center for Disaster Mitigation & Management**, which address diverse challenges in renewable energy, materials science, and disaster management. These centers promote multidisciplinary approaches, engaging faculty and students in innovative solutions

• Ongoing Research Projects:

Projects funded by DST and DRDO focus on developing sustainable energy systems, improving urban infrastructure, and creating disaster-resilient models. Other projects address environmental conservation and smart grid technologies to reduce energy losses

Publications:

Faculty and researchers frequently publish in renowned journals like *Springer* and *Elsevier*. Publications span engineering disciplines, emphasizing material composites, environmental engineering, and computational sciences.

Patents:

MNIT has filed patents for renewable energy solutions, advanced sensor technologies, and smart urban planning tools. Many patents align with their focus on sustainability and green energy initiatives.

Innovation Lab:

Equipped with cutting-edge facilities, the lab supports projects in IoT, robotics, and AI. Students and faculty work on developing prototypes and testing innovative solutions for real-world applications

• Incubation Center:

The **MNIT Innovation and Incubation Center** (MIIC) offers mentorship, funding, and resources for startups in IT, manufacturing, and green technology sectors. MIIC has incubated several successful ventures

Collaborative Projects:

MNIT collaborates with organizations like ISRO, CSIR, and international universities. Joint projects include satellite communication, disaster risk reduction, and energy-efficient technologies.

2. BITS Pilani

Research Centers:

The **Center for Robotics and Embedded Systems**, **Center for Water Resources**, and the **Pharmacy Research Center** are hubs of interdisciplinary innovation. These centers tackle challenges in automation, resource management, and bioengineering.

Ongoing Research Projects:

BITS is engaged in government-funded projects on robotics in healthcare, sustainable agriculture, and computational drug design. Private collaborations support its work on IoT-based automation.

Publications:

BITS researchers contribute extensively to leading journals like IEEE Transactions and *Nature Biotechnology*. The focus areas include AI, advanced robotics, and sustainable systems.

Patents:

Patents in biotechnology (e.g., drug delivery systems) and automation solutions highlight BITS Pilani's innovative contributions. The institute also focuses on nanotechnology-enabled devices .

Innovation Lab:

Labs equipped with state-of-the-art instruments drive projects in machine learning, healthcare, and manufacturing. These labs support interdisciplinary research and product development.

• Incubation Center:

The **BITS Technology Business Incubator** nurtures startups by offering seed funding, office space, and mentorship. Startups span sectors like healthcare, clean energy, and IT.

• Collaborative Projects:

Active partnerships with global universities in Europe and the US focus on AI-driven healthcare solutions, water resource management, and energy efficiency projects .

3. IIT Jodhpur

Research Centers:

IIT Jodhpur boasts advanced centers, including the Center for Al and IoT, the Data

Sciences Lab, and the **Center for Smart Healthcare**. These centers integrate computational sciences with real-world problem-solving.

Ongoing Research Projects:

Projects include AI for healthcare diagnostics, renewable energy systems, and climate adaptation models. Significant funding from DST and international organizations supports these initiatives.

Publications:

Contributions to journals like IEEE, Elsevier, and *Springer Nature* reflect IIT Jodhpur's leadership in computational biology, green technology, and smart systems.

Patents:

IIT Jodhpur excels in AI patents for diagnostic tools, energy-efficient technologies, and advanced sensors. Patents showcase the institution's focus on sustainable and scalable solutions .

Innovation Lab:

The Smart Innovation Lab drives product development in AI, automation, and green energy systems. Students and researchers collaborate to create deployable technologies.

• Incubation Center:

The IITJ Incubation Center fosters entrepreneurship, offering seed funding and collaboration opportunities in AI, robotics, and IoT domains.

Collaborative Projects:

Collaborations with institutions like MIT and Oxford involve interdisciplinary research in smart energy, healthcare innovations, and environmental sustainability.

4. University of Rajasthan, Jaipur

Research Centers:

The university features centers such as the **Institute of Development Studies** and the **Center for Advanced Studies in Chemistry**. These cater to research in economics, social sciences, and environmental studies.

Ongoing Research Projects:

Projects include studies on climate change impact on agriculture, regional biodiversity conservation, and urban infrastructure planning. Many of these projects are state-funded.

Publications:

The university publishes extensively in journals like *Indian Journal of Environmental Sciences* and *Journal of Social Development Studies*. Most publications are related to humanities, natural sciences, and regional studies.

Patents:

A smaller focus on patents, primarily in applied sciences such as environmental engineering and biochemistry .

• Innovation Lab:

Laboratories at the university are equipped for humanities-focused interdisciplinary studies, alongside experimental setups in physics and chemistry.

• Incubation Center:

Focused on nurturing small-scale social enterprises and sustainable local business models .

• Collaborative Projects:

Partnerships with UNESCO and local government organizations for cultural preservation and urban planning studies .

5. LNMIIT Jaipur

Research Centers:

Includes the **Center for Data Analytics**, **Cybersecurity Labs**, and **IoT Research Hub**. These centers address technological challenges in secure communication and big data analytics.

Ongoing Research Projects:

Key projects involve developing algorithms for secure IoT devices, machine learning applications in healthcare, and smart city technologies. Many projects are funded by DST and industry partners.

Publications:

LNMIIT researchers contribute significantly to IEEE and ACM journals in areas of computer science, electronics, and data analytics.

• Patents:

Patents include encryption technologies for cybersecurity and IoT hardware innovations. These focus on improving digital security frameworks .

Innovation Lab:

The lab encourages undergraduate and graduate students to develop practical applications for IT solutions, particularly in AI and networking .

Incubation Center:

Supports startups in technology, with a strong emphasis on digital platforms and cybersecurity tools. Several successful IT-based startups have emerged from LNMIIT.

Collaborative Projects:

Collaboration with TCS, Infosys, and DST on IoT and AI advancements.

6. Amity University, Jaipur

Research Centers:

Hosts the **Biotechnology Research Facility** and **Nanotechnology Research Center**, among others. These aim to tackle issues in health sciences and advanced materials.

Ongoing Research Projects:

Amity leads projects on nanomedicine, renewable energy systems, and water purification techniques. Industry and government agencies like DBT fund these projects.

Publications:

Frequent contributors to international journals like *Nature Biotechnology* and *ACS Nano*, particularly in life sciences and nanotechnology.

Patents:

Filed patents include advancements in nanomaterials and biodegradable plastics, reflecting their sustainability-focused approach.

Innovation Lab:

Innovation spaces support drug development and advanced diagnostic tools. Labs are designed to foster translational research .

Incubation Center:

Amity's incubation initiatives focus on biotech startups, supporting them with seed funding, infrastructure, and business guidance.

Collaborative Projects:

Collaborates with European universities for sustainable energy and healthcarerelated innovations .

7. Manipal University Jaipur

Research Centers:

Includes the **Manipal Center for Natural Sciences** and the **Advanced Materials Research Laboratory**. These focus on space science, nanotechnology, and advanced materials.

Ongoing Research Projects:

Key projects address green energy technologies, quantum computing, and advanced material composites. Collaborative efforts involve DST and leading private companies.

Publications:

Research outputs include articles in *Nature Physics* and *Elsevier's Materials Today*. Fields of focus are material sciences, AI, and healthcare.

Patents:

Manipal University is active in patenting nanotechnology-based solutions, quantum devices, and sustainable agricultural tools.

Innovation Lab:

Provides resources for AI development, healthcare simulations, and advanced physics experiments. Students and researchers can work collaboratively on innovative technologies.

Incubation Center:

The center promotes entrepreneurship in areas like IoT, agritech, and fintech. Several student-led startups have received funding through this platform .

Collaborative Projects:

Engages in partnerships with institutions like IIT Bombay and Microsoft Research for projects on Al-driven healthcare and renewable energy systems .

8. Mody University of Science and Technology

• Research Centers:

Features the **Center for Women in STEM** and **Renewable Energy Research Facility**. These centers empower women researchers and contribute to sustainable energy innovations .

Ongoing Research Projects:

Includes studies on solar-powered desalination, women-led technology advancements, and AI in education .

Publications:

Researchers contribute to journals like *IEEE Education Transactions* and *Energy Conversion and Management*. Publications often focus on renewable technologies and education reforms.

Patents:

Innovations in renewable energy devices and education-focused AI tools have been patented recently .

Innovation Lab:

Provides a platform for students to develop smart classroom technologies and green energy prototypes .

• Incubation Center:

Supports startups focusing on edtech and renewable energy systems. Mentorship programs connect students with industry leaders.

Collaborative Projects:

Collaborations include partnerships with global organizations like UNESCO and Siemens on women empowerment and green energy initiatives .

9. Poornima University, Jaipur

Research Centers:

Hosts the **Center for Smart Infrastructure** and the **IoT and Robotics Research Lab**, aimed at urban planning and smart technologies .

Ongoing Research Projects:

Projects include smart city planning, Al for traffic management, and IoT-enabled healthcare systems, with funding from private firms and government agencies.

Publications:

Faculty frequently publish in engineering-focused journals such as ASCE Journal of Infrastructure Systems. Topics include AI, civil engineering, and IoT.

Patents:

Recent patents involve IoT hardware for smart homes and AI algorithms for urban monitoring .

Innovation Lab:

Focuses on engineering solutions for real-world urban issues like traffic optimization and waste management .

Incubation Center:

Supports innovation in smart technologies, offering guidance to startups focusing on IoT and AI products .

• Collaborative Projects:

Partnerships with Cisco and Bosch for IoT-enabled smart city projects highlight Poornima University's collaborative efforts .

10. The LNM Institute of Information Technology (LNMIIT)

Research Centers:

Includes the **Advanced Networking Research Center** and **Cybersecurity Lab**. These focus on internet security and machine learning applications.

Ongoing Research Projects:

Funded by DST and private players, projects involve secure communication protocols, AI for healthcare diagnostics, and blockchain-based systems.

Publications:

Researchers have contributed to *Springer's Lecture Notes in Computer Science* and *ACM Digital Library*. Topics include cybersecurity and IoT.

Patents:

Active in filing patents for encryption technologies and Al-driven decision systems.

Innovation Lab:

Facilitates development of advanced applications in cybersecurity, networking, and artificial intelligence .

Incubation Center:

Focused on fostering startups in IT and digital systems. Some successful ventures have emerged in fintech and digital health .

• Collaborative Projects:

Collaborations include industry giants like Intel and TCS for advancements in networking and secure computing .

11. Rajasthan Technical University (RTU), Kota

Research Centers:

Includes the Advanced Engineering Materials Lab and the Center for Sustainable

Energy Solutions, focusing on material innovation and renewable energy technologies .

Ongoing Research Projects:

Key projects include smart grid systems, bio-inspired materials, and wastewater management funded by DST and private sponsors .

Publications:

RTU faculty publish in journals like ASCE Materials in Civil Engineering and Renewable Energy Journal. Topics span energy systems and environmental engineering.

Patents:

Focused on innovations in solar thermal systems and green construction materials, with an emphasis on sustainability .

Innovation Lab:

Designed to support student-driven projects in smart technologies and renewable energy .

• Incubation Center:

Provides resources for startups in clean energy and materials science, promoting sustainable industrial practices .

• Collaborative Projects:

Partnerships with NTPC, Larsen & Toubro, and other industries for smart city infrastructure and green energy projects .

12. Banasthali Vidyapith, Tonk

Research Centers:

Features the **Women in Technology Research Center** and **Biotechnology Innovation Hub**, emphasizing gender inclusivity and life sciences innovation.

Ongoing Research Projects:

Projects on genomic research, renewable energy integration in agriculture, and Aldriven educational tools funded by DBT and UGC .

Publications:

Notable contributions to journals like *Journal of Agricultural Biotechnology* and *IEEE Education Transactions*, focusing on educational and agricultural advancements .

Patents:

Patented innovations in bio-pesticides and adaptive learning systems demonstrate Banasthali's interdisciplinary approach .

Innovation Lab:

Facilitates work on women-led projects in STEM fields, from product design to prototype development.

Incubation Center:

Supports startups focusing on edtech, healthcare, and agricultural technologies, promoting rural entrepreneurship.

• Collaborative Projects:

Collaborates with UNESCO and state government initiatives to promote women-centric research and education programs .

13. Jaipur National University (JNU), Jaipur

• Research Centers:

Hosts the **Center for Medical Biotechnology** and **Center for Advanced Computing Research**, enabling interdisciplinary studies.

Ongoing Research Projects:

Includes studies on drug delivery mechanisms, AI in public health, and advanced cryptographic systems for secure communication .

Publications:

Regular contributions to journals like *Clinical Therapeutics* and *ACM Transactions* on *Cybersecurity*, focusing on healthcare and digital security.

Patents:

Filed patents in nanomedicine and blockchain-based security systems highlight the institution's focus on cutting-edge technology .

• Innovation Lab:

Supports projects in medical diagnostics and AI-driven analytics, offering opportunities for interdisciplinary collaboration .

• Incubation Center:

Focused on promoting healthcare startups and tech-driven business solutions in public health .

Collaborative Projects:

Partnerships with the Indian Council of Medical Research (ICMR) and tech firms for advanced health monitoring systems .

14. Maharana Pratap University of Agriculture and Technology (MPUAT), Udaipur

Research Centers:

Includes the **Center for Agricultural Innovation** and **Agro-Engineering Research Hub**, targeting challenges in sustainable agriculture.

• Ongoing Research Projects:

Focused on soil health monitoring, climate-resilient crops, and IoT-based irrigation systems with support from ICAR and government agencies .

Publications:

Research appears in journals like *Agricultural Systems* and *Journal of Soil Science*. Focus areas include sustainable farming and agro-technologies .

Patents:

Innovations in smart irrigation systems and bio-fertilizers underline MPUAT's commitment to agricultural progress .

Innovation Lab:

Offers resources for developing agro-machinery and testing sustainable farming prototypes .

Incubation Center:

Supports startups in agritech and food processing, connecting them with industry stakeholders .

Collaborative Projects:

Works with NABARD and FAO for projects addressing food security and sustainable agriculture .

15. Vivekananda Global University (VGU), Jaipur

• Research Centers:

Includes the **Center for Smart Technology** and **Applied Science Innovation Lab**, focusing on IoT and advanced engineering solutions.

• Ongoing Research Projects:

Research includes smart energy meters, AI-based waste management, and green infrastructure funded by private firms and government bodies.

Publications:

Frequent publications in journals like Journal of Smart Engineering and ASCE

Environmental Engineering. Topics include smart technologies and environmental solutions .

Patents:

Focused on IoT solutions for urban management and energy optimization systems.

• Innovation Lab:

Equipped with state-of-the-art systems for AI, robotics, and IoT, driving interdisciplinary innovation .

Incubation Center:

Supports entrepreneurial initiatives in clean tech, urban planning, and IT solutions, enabling impactful startups .

• Collaborative Projects:

Collaborates with local municipal bodies and private tech companies for developing smart city solutions .

16. JNV University, Jodhpur

• Research Centers:

Includes the **Center for Desert Studies** and **Advanced Materials Lab**, focusing on desert ecology, arid land agriculture, and material sciences.

Ongoing Research Projects:

Key projects include the study of drought-resistant crops, water conservation technologies, and advanced composites for structural applications.

Publications:

Faculty frequently contribute to journals like *Desert Research Journal* and *Materials Science and Engineering Reports*. The focus is on sustainable technologies and desert biodiversity.

Patents:

Patents include innovations in soil erosion prevention methods and bio-based structural materials.

Innovation Lab:

The lab fosters student-led projects in resource optimization and environmental monitoring for desert ecosystems .

• Incubation Center:

Supports startups focused on renewable energy and sustainable practices suitable for arid regions .

• Collaborative Projects:

Collaborates with the Central Arid Zone Research Institute (CAZRI) and international bodies for ecological and agricultural research.

17. ICFAI University, Jaipur

• Research Centers:

Features the **Center for Business Analytics** and **Law and Governance Research Hub**, addressing business intelligence and public policy challenges .

Ongoing Research Projects:

Projects include studies on data-driven decision-making tools, AI in legal analytics, and blockchain in governance .

• Publications:

ICFAI faculty publish regularly in journals like *Journal of Business Research* and *Law Technology and Policy Review*. Focus areas include analytics and regulatory frameworks.

Patents:

Filed patents cover innovations in blockchain systems for secure transactions and machine learning for predictive analytics .

• Innovation Lab:

Aims to bridge gaps between business problems and tech-driven solutions, especially in fintech and legal tech .

• Incubation Center:

Encourages startups in business analytics, offering mentorship and seed funding for scalable solutions .

Collaborative Projects:

Works with fintech firms and law institutes for projects in regulatory compliance and AI-driven financial systems .

18. Maharaja Ganga Singh University (MGSU), Bikaner

• Research Centers:

Includes the **Center for Historical Research** and **Environmental Studies Lab**, which focus on cultural heritage and regional environmental issues .

Ongoing Research Projects:

Active projects include the digitization of historical manuscripts and studies on sustainable water usage in arid regions .

Publications:

Contributions to journals like *Indian History Quarterly* and *Environmental Science* & *Policy*. Topics include heritage conservation and water management.

• Patents:

Limited patent activity, primarily in environmental sustainability.

• Innovation Lab:

Supports research in historical artifact preservation and environmental monitoring systems .

Incubation Center:

Encourages startups focused on ecotourism and heritage preservation technologies .

Collaborative Projects:

Collaborates with UNESCO and local governments for heritage and sustainability initiatives .

19. Pacific University, Udaipur

• Research Centers:

Includes the **Center for Biotechnology** and **Applied Mechanics Lab**, addressing innovations in life sciences and structural engineering.

Ongoing Research Projects:

Projects include the development of bioengineered materials, studies on structural resilience, and medical imaging technologies.

• Publications:

Frequent contributions to journals like *Biotechnology Advances* and *Structural Health Monitoring*. Topics include advanced biomaterials and engineering diagnostics.

Patents:

Focused on bioengineered materials and imaging devices, showcasing technological innovations .

• Innovation Lab:

Encourages interdisciplinary approaches to biotech and mechanical engineering challenges .

Incubation Center:

Supports biotech startups in pharmaceuticals and agricultural technologies.

• Collaborative Projects:

Works with pharmaceutical companies and engineering firms for applied research.

20. IIS (Deemed to be University), Jaipur

• Research Centers:

Hosts the **Center for Advanced Research in Women's Studies** and **Digital Humanities Lab**, focusing on gender studies and cultural analytics.

Ongoing Research Projects:

Studies include women's health analytics, cultural narratives in digital media, and sustainable development policies .

Publications:

IIS researchers contribute to journals like *Feminist Studies* and *Digital Humanities Quarterly*. Topics focus on gender equity and cultural data analysis.

Patents:

Limited activity, primarily in tools for digital cultural analytics.

Innovation Lab:

Provides platforms for experimental studies in gender-focused STEM education and cultural preservation .

Incubation Center:

Encourages startups in gender equity tools and digital education platforms.

• Collaborative Projects:

Partnerships with national women's organizations and cultural bodies for applied gender research .