

UMPS

Single Window System for Mountaineering Activities in Uttarakhand

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Uttarakhand, home to some of India's most prominent Himalayan peaks and trekking routes, attracts thousands of mountaineers and adventure enthusiasts every year. Managing expeditions in remote and ecologically sensitive regions, however, traditionally involved lengthy manual procedures, multiple departmental approvals, and limited visibility into expedition activities.

To address these challenges, the Government of Uttarakhand launched the Uttarakhand Mountaineering Permission System (UMPS) on 26 September 2021 during the Uttarakhand Adventure Festival. The portal serves as a centralized platform for managing mountaineering permissions and related services, making Uttarakhand one of the first states in India to comprehensively digitize mountaineering governance.

Need for the Initiative

The growing popularity of adventure tourism highlighted the need for a transparent, efficient, and technology-driven system to:

- Simplify permit approvals
- Improve inter-departmental coordination
- Enhance climber safety and expedition tracking
- Strengthen environmental compliance
- Enable faster emergency response
- Support data-driven planning and policy making

UMPS was conceived to eliminate fragmented processes and create a seamless digital ecosystem for adventure tourism management.



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The UMPS is a Single Window digital platform that streamlines the regulation, facilitation, and monitoring of mountaineering expeditions and trekking activities in Uttarakhand. By digitizing permit approvals and integrating all stakeholders on a unified platform, the system enhances operational efficiency, tourist safety, transparency, and sustainable tourism while enabling data-driven governance in the adventure tourism sector.



Overview of the Portal

UMPS integrates all key stakeholders—including mountaineers, expedition teams, the Indian Mountaineering Foundation (IMF), Forest Department, Tourism Department, and district authorities—on a single platform.

The portal enables users to:

- Access information on 83 identified peaks
- Apply for expedition permits online
- Upload required documents
- Make digital payments
- Track application status in real time
- Receive notifications and approvals electronically

Challenges in the Traditional System

Prior to the implementation of UMPS, expedition organizers had to navigate a lengthy and often complex approval process.

Key Challenges

- Multiple physical visits to government offices
- Submission of duplicate documents to different authorities
- Manual scrutiny and verification processes
- Lack of real-time status tracking
- Delays in inter-departmental communication
- Limited visibility into ongoing expeditions
- Difficulty in maintaining historical expedition records
- Absence of centralized data for planning and analysis

These challenges often discouraged expedition organizers and increased the administrative burden on government agencies.

Key Features of the System

Online Registration and User Management

The portal provides role-based access to different categories of users, enabling secure and controlled participation by expedition organizers, officials, and administrators.

Digital Permit Management

A fully automated permit management framework facilitates application processing, verification, approval, and issuance without manual intervention.

Peak Information Repository

A centralized database provides comprehensive information on identified peaks, climbing seasons, routes, regulations, and applicable guidelines.

Expedition Monitoring System

Authorities can monitor expedition activities and maintain updated records, enhancing safety management and operational oversight.

Integrated Digital Payment System

The platform supports secure online payment of expedition fees, permit charges, and applicable local taxes, ensuring convenience and transparency.

Automated Notifications

Applicants receive alerts and updates regarding application status, approvals, deficiencies, and permit issuance.

Administrative Dashboard

A comprehensive dashboard enables officials to:

- Review applications
- Track expedition activities
- Generate analytical reports
- Monitor peak utilization
- Analyze tourism trends
- Support policy formulation

Centralized Data Management

The portal serves as a single source of truth for all expedition-related information, improving accuracy, consistency, and accessibility.

Technology Architecture

The solution has been designed using a scalable and robust technology stack capable of supporting growing user demand and future enhancements.

Application Architecture

- Web-based centralized platform
- Modular and scalable design
- Service-oriented workflow architecture
- Responsive user interface for multiple devices

vision of establishing Uttarakhand as a model state for technology-enabled adventure tourism governance.

- **Unified Digital Ecosystem:** To provide a single-window platform covering the complete adventure tourism lifecycle.
- **Operational Excellence:** To ensure transparency, efficiency, and accountability through automation.
- **Enhanced Safety:** To improve expedition tracking and strengthen emergency response capabilities.
- **Sustainable Tourism:** To encourage environmentally responsible tourism practices and preserve fragile Himalayan ecosystems.
- **Data-Driven Governance:** To equip administrators and policymakers with real-time information and analytical insights for informed decision-making.

Benefits to Stakeholders

For Mountaineers

- Faster approvals
- Simplified procedures
- Reduced paperwork
- Online access to information
- Greater transparency

Impact and Achievements

Since its launch in 2021, the portal has significantly improved the management of mountaineering activities in Uttarakhand.

Key Outcomes

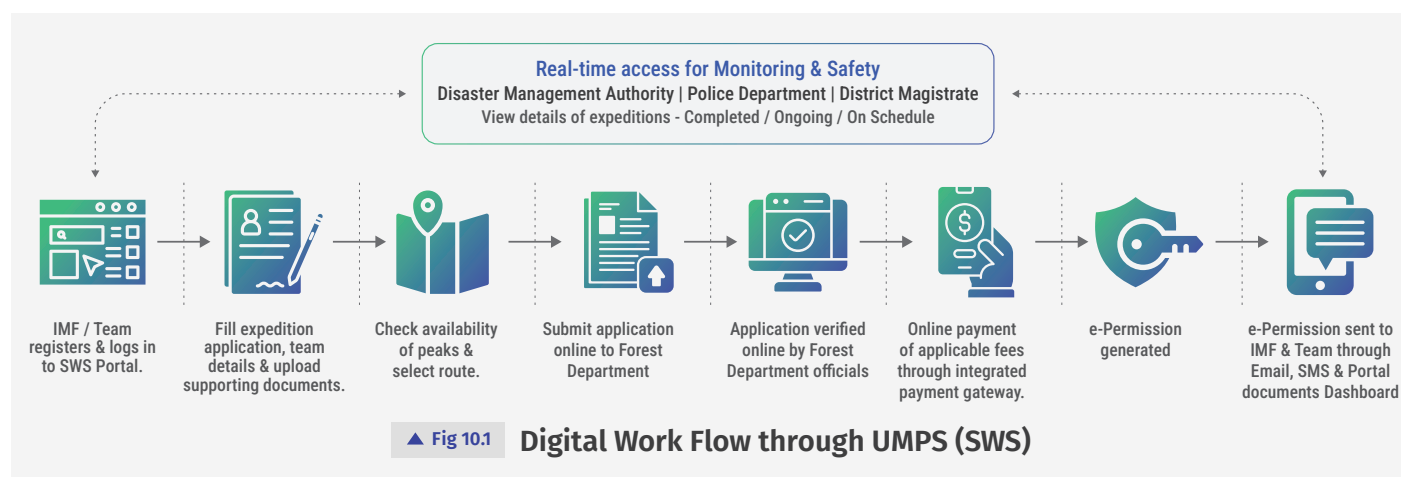
- Standardized expedition approval workflows
- Elimination of fragmented approval mechanisms
- Enhanced transparency and accountability
- Improved tourist safety and expedition tracking
- Centralized repository of mountaineering information
- Greater operational efficiency among departments
- Strengthened environmental monitoring and compliance

Success Indicators

- Operational successfully since 2021
- More than 100 expedition permits issued
- Over 500 mountaineers facilitated
- Comprehensive coverage of 83 identified mountaineering peaks

Conclusion

The UMPS is a pioneering e-Governance initiative that has streamlined mountaineering



Technologies Used

Front End

- ASP.NET
- AJAX
- jQuery
- Bootstrap

Back End

- PostgreSQL Database

Cloud Infrastructure

- Hosted on the State Data Centre Cloud
- High availability architecture
- Backup and disaster recovery mechanisms
- Secure hosting environment
- Centralized monitoring and maintenance

Vision and Objectives

The initiative has been guided by a long-term

For Government Departments

- Improved coordination
- Standardized workflows
- Better monitoring capabilities
- Reduced administrative burden
- Enhanced record management

For Local Communities

- Increased tourism opportunities
- Economic growth through adventure tourism
- Improved visibility of local services and support systems

For Policymakers

- Access to accurate and real-time data
- Better planning and resource allocation
- Improved environmental and tourism management

management through a transparent, efficient, and integrated digital platform. By digitizing permit workflows and connecting all stakeholders, it enhances operational efficiency, tourist safety, regulatory oversight, and sustainable tourism. Designed for scalability, the platform can be further enhanced with advanced tracking and analytics capabilities and replicated across other Himalayan states, making it a model for technology-driven adventure tourism governance in India.

Contact for more details

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