HP Labs, headquartered in Palo Alto, USA, is the corporate research group of HP, and one of the world's leading industrial research laboratories. HP Labs conducts high-impact scientific research to address the most important challenges and opportunities facing our customers and society in the next decade.

HP Labs India was established in February 2002 with the principal focus on creating new technologies for addressing the IT needs of the next billion customers for HP. A large majority of these new customers arise from rapidly growing markets such as India with distinct technological, social and economic characteristics. HP Labs India uses the understanding of this context and carries out deep technical research that has direct impact on HP's business through innovations in product and service offerings valued by customers.

HP Labs India's current focus is on: *"Enabling rich and intuitive experiences that deliver the value of computing and the internet for all"* through technology research and innovation. We provide an excellent opportunity for interns and post-docs to contribute to the ongoing research, working on cutting edge technologies that can have deep impact.

We are currently seeking **interns** and **post-docs** in the following areas. Some representative topics are also given for each area.

Intuitive Multimodal and Gestural Interaction

Intuitive and engaging user interfaces, interaction paradigms and supporting technologies that can leverage one or more natural input modalities such as touch, gestures, gaze, limited speech and the context of interaction and adapt with use.

Topics include:

- People tracking in a closed environment
- Multimodal interaction for immersive spaces (multiple displays, multiple devices)
- Facial image analysis and pattern recognition
- Dialog management and statistical language models for gestural and multimodal interaction

Simplifying Web Access and Interaction

Novel techniques and architectures to radically simplify creation, consumption and discovery of web content/services through intuitive and familiar interaction paradigms.

Topics include:

- Semantic social networks
- Opinion and intent mining
- Semantic text mining
- Web change modeling
- End-user programming of long-tail applications
- Gaze in information retrieval
- Navigation and presentation technologies for video
- Augmenting video with gestural interaction and feedback
- Context in personalization
- Document summarization
- Modeling and using affect
- Group recommenders

At HP Labs, future is not just a dream, you'll INVENT it.

Year 2011 Internship and Post-Doctoral Research Opportunities at HP Labs India, Bangalore

Paper Based Interaction

Creation of unique and novel technologies to enable seamless co-existence of paper in a digital environment and to realize rich user experiences around paper processing and transactions.

Topics include:

- Camera based document imaging
- Object recognition and extraction
- Handwritten keyword spotting
- Embedded image processing
- Compressed sensing

Systems Architecture, Cloud Applications and Services

Distributed architectures, design and development of cloud based applications and services in the fixed and mobile domains.

Topics include:

- Mobile-cloud data security, group messaging
- Cloud computing and communication
- Smart grid

General Requirements

Our program accepts high quality interns and post-docs from both Indian and international universities. For interns we are especially interested in candidates who are enrolled for MS or PhD programs in computer science, electrical engineering, user-centered design, design ethnography, and business research. The candidates must be hands-on and well-versed in programming. The tenure is generally 3-6 months for interns and up to 1 year for post docs, with possibility of extension.

Mobile Device and Mobile Computing

Novel architectures and solutions to bridge the gap between mobile and non-mobile experiences.

Topics include:

- Mobile internet
- Mobile data analytics
- Location-based and personalized services
- Embedded systems
- Interaction paradigms
- Mobile caching techniques
- Operating systems(Linux, WebOS)

To apply, email your resume to hplindia.careers@hp.com with the subject line: <Internships or Post-Doc (select one)> in <give one or more areas of interests>.
Also provide details of the specific topics of interest in the body of your email.

There are only limited positions open; therefore, prospective candidates are encouraged to apply as soon as possible.

For more information about our research, please visit www.hpl.hp.com/india