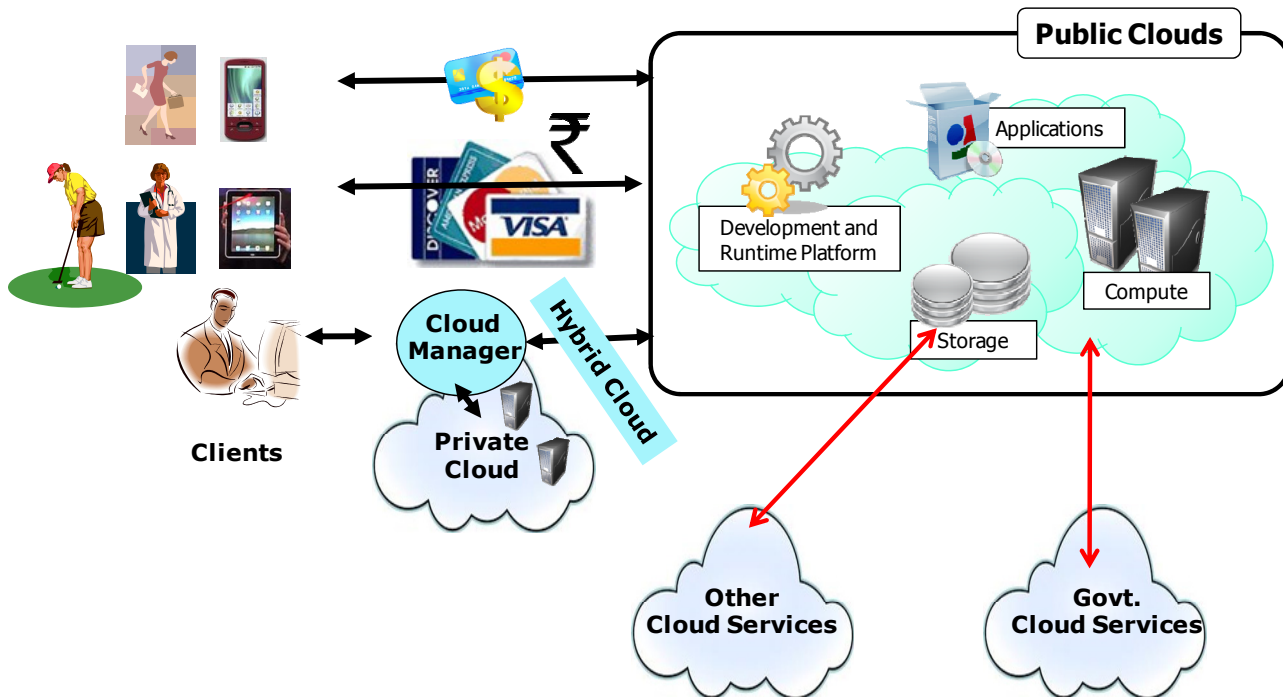


## Cloud Computing



*Delivering computing as the 5<sup>th</sup> utility after water, gas, electricity, and telephone as subscription service.*

**Supervisors:** Prof Rajkumar Buyya (ARC Future Fellow, University of Melbourne)

**Dual PhD option:** It is possible to conduct part of the PhD thesis at IIT

**Project description:** Cloud computing is offering utility-oriented IT services to users worldwide. Based on pay-as-you-go model, it enables hosting of pervasive applications from consumer, scientific, and business domains. However, the current Cloud application platforms do not support autonomic leasing of the right amount of resources at runtime to meet quality of service requirements of users while minimizing the cost of leasing Cloud infrastructure capabilities. This project aims to transform Cloud computing by developing: (a) architectural principles for autonomic management of management of Clouds; (b) market-oriented resource allocation policies and scheduling algorithms; and (c) a novel software technology for autonomic management of Clouds.

**Student performance requirement:** GPA of 8.5/10 or better.

**Please note:** The applicant must discuss with the nominated supervisors before finalising the project proposal to be submitted to the University of Melbourne. This proposal is dedicated to IIT Kanpur educated students only. The scholarship covers tuition and living expenses to work on the project. Applicants are not required to do any teaching. Duration of the PhD is 3-3.5 years and applicants can be admitted to the PhD candidature after the completion of a Masters degree or 4 year Bachelors degree from IIT Kanpur.

**Rankings:** The Melbourne School of Engineering is Australia's No. 1 engineering and technology school and No. 25 in the world.\*

**Website:** [www.eng.unimelb.edu.au](http://www.eng.unimelb.edu.au)

\*Times Higher Education World University Rankings 2012-2013.