

An Indian-Australian research partnership

Project Title:

Project Number

Monash Main Supervisor
(Name, Email Id, Phone) *Full name, Email*

Monash Co-supervisor(s)
(Name, Email Id, Phone)

Monash Head of Dept.
(Name,Email) *Full name, email*

Monash Department:

Monash ADRT
(Name,Email) *Full name, email*

IITB Main Supervisor
(Name, Email Id, Phone) *Full name, Email*

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IITB Head of Dept
(Name, Email, Phone) *Full name, email*

IITB Department:

Research Academy Themes:

Highlight which of the Academy's Theme(s) this project will address?

(Feel free to nominate more than one. For more information, see www.iitbmonash.org)

1. **Advanced computational engineering, simulation and manufacture**
2. Infrastructure Engineering
3. Clean Energy
4. Water
5. Nanotechnology
6. Biotechnology and Stem Cell Research

The research problem

Define the problem

In this project, we aim for web-scale relation extraction, i.e. to identify entities and the relation between for a large scale text corpus. We will investigate the use of probabilistic graphical models for this large-scale inference problem to answer entity/relation extraction in big data. We will investigate the injection of "known facts" from existing knowledge bases in training this large scale graphical model setting to distantly supervise the model.

References:

1) Towards Large-Scale Unsupervised Relation Extraction from the Web,
Bonan Min, Shuming Shi, Ralph Grishman, Chin-Yew Lin

2) Distant supervision for relation extraction without labeled data
Mike Mintz, Steven Bills, Rion Snow, Dan Jurafsky

3) Large-Scale Learning of Relation-Extraction Rules with Distant Supervision from the Web
Sebastian Krause, Hong Li, Hans Uszkoreit and Feiyu Xu

Project aims

Define the aims of the project

Expected outcomes

Highlight the expected outcomes of the project

How will the project address the Goals of the above Themes?

Describe how the project will address the goals of one or more of the 6 Themes listed above.

Capabilities and Degrees Required

List the ideal set of capabilities that a student should have for this project. Feel free to be as specific or as general as you like. These capabilities will be input into the online application form and students who opt for this project will be required to show that they can demonstrate these capabilities.

Potential Collaborators

Please visit the IITB website www.iitb.ac.in OR Monash Website www.monash.edu to highlight some potential collaborators that would be best suited for the area of research you are intending to float.