

A photograph of a desk with various items. In the center is a laptop displaying the Windows 8 Start menu with various app tiles like Mail, Photos, and Netflix. To the left is a white cup filled with colorful pencils. In the foreground, there are several markers and a notebook with handwritten notes. The background shows a wire mesh basket and a red cup. The overall scene is a typical student workspace.

# Reducing Social Loafing in Information Technology Undergraduate Group Projects



## Social Loafing (Free riding)

- **Social loafing** is a behavior where **certain students fail to contribute their fair share of effort when compared to the other students of the group.**
- **Project Based Learning** plays a major role in current undergraduate education.
- Group projects are common in Information Technology (IT) studies.
- **Very few researchers have focused on the social loafing aspect of IT related projects.**

A vertical image on the left side of the slide shows a white laptop with a Windows 10 desktop background, a notebook with handwritten notes, and a colorful abstract drawing. The title 'Problems with Social Loafing' is overlaid on a dark red horizontal bar at the top.

## Problems with Social Loafing

- De-motivate hardworking students.
- Make group conflicts.
- Finally, leads to unsuccessful projects.

The image is a collage. On the left, there is a white laptop with a Windows logo on the keyboard. The screen shows a Windows desktop with several application tiles. Below the laptop is a notebook with handwritten notes in blue ink. To the right of the laptop is a colorful abstract drawing with blue and yellow waves. The top of the image is a solid dark red horizontal bar.

# Objectives

- To recommending a set of mechanisms based on previous research and lecturers' experiences.
- To explore which factors are most effective in controlling free riding as per the students' perspective.

# Methodology

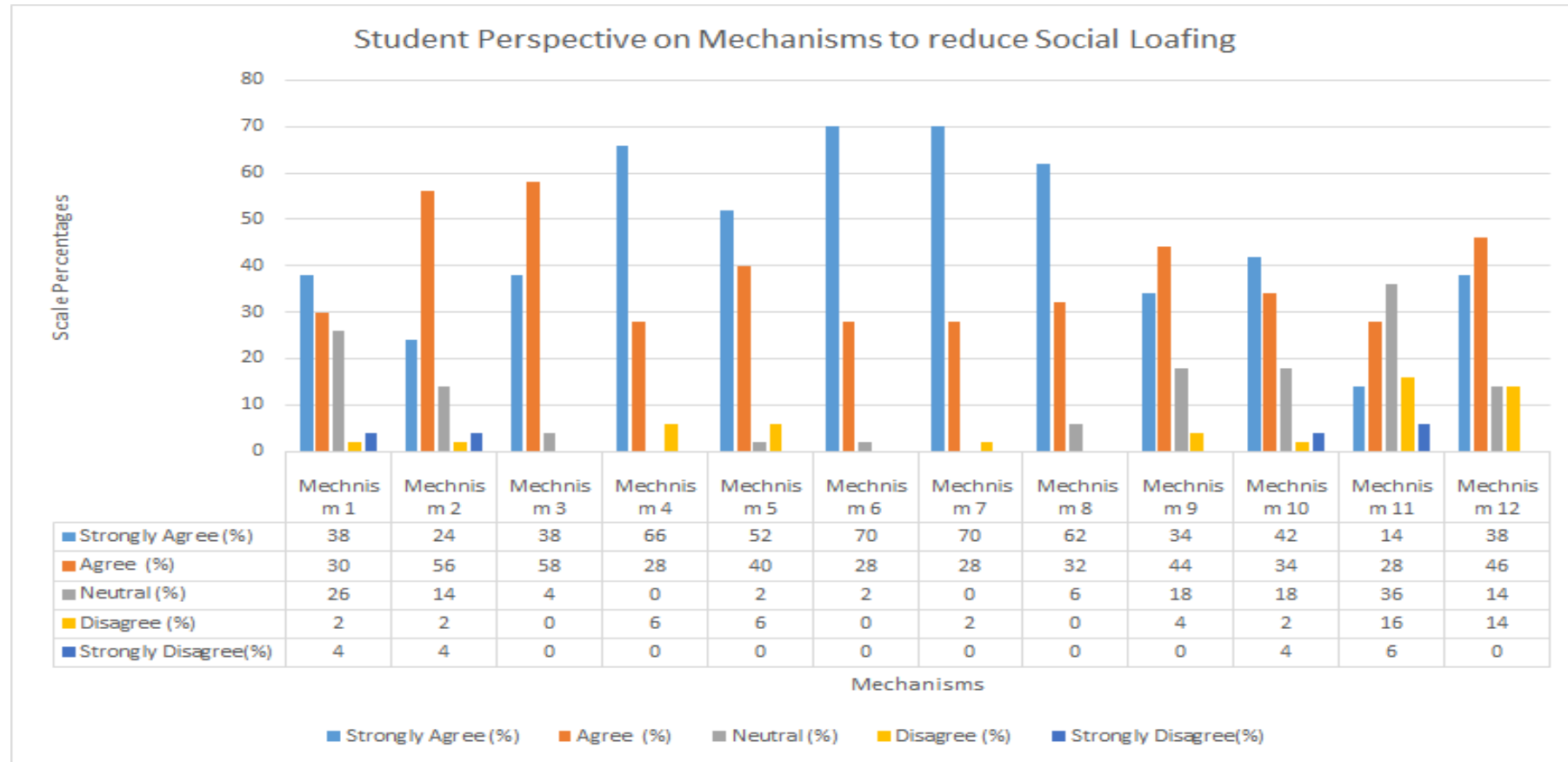
- A study conducted among a batch of 2nd year students who are following Information Technology group projects at Sri Lanka Institute of Information Technology.
- Asked to **form groups** of 5-8 members **on their own** and identify a client for their project according to their interest.
- **Twelve distinct approaches** to minimize freeriding have been identified by the lecturers based on literature and experience.
- The selected **approaches were experimented** throughout the duration of one semester.
- Students' experiences and their perspectives on the mechanisms used for reducing free riding was collected using a **questionnaire**.
  - \* Student ratings for each mechanism (5 point Likert scale)
  - \* Number of complaints against freeriding incidents
  - \* Lecturers' views



Table 1: Twelve Mechanisms to Reduce Social Loafing in IT Group Projects

No	Mechanisms to Reduce Free Riding
1	Allowing students to select members for their group by themselves
2	Allowing students of a group to select the client/project they are interested in by themselves rather than having same assigned by the lecturer
3	Maintaining a moderate group size (i.e. avoiding too large groups)
4	Assigning individual functions to each member and entrusting full responsibility for that component to that person
5	Assigning similar responsibilities (responsibility for entire unit from design to testing) to all members
6	Assessing individual contribution of each member during evaluations
7	Checking and make sure that all members have similar overall understanding about the project
8	Conducting individual viva sessions
9	Checking individual contribution in document preparation
10	Holding regular group meetings with the supervisor and marking attendance
11	Conducting peer reviews (All students grade the contribution of other members of the group confidentially)
12	Ensuring lecturer involvement in supervision of task distribution and group communication when there are conflicts within the group

# Student Perspective



**Fig. 1.** Students' Perspective on Mechanisms to reduce Social Loafing

# Outcomes

- Most of the selected mechanisms will be successful in reducing freeriding in IT group projects.
- Mechanisms with most effect:
  - \* Assessing the individual contribution of each member during evaluation
  - \* Checking the overall understanding of each member about the project
  - \* Maintaining a moderate group size
  - \* Assigning individual functions to each member and giving him full responsibility of that part
- Mechanisms with less effect:
  - \* Peer review
  - \* Holding regular group meetings with the supervisor and marking attendance.
  - \* Allowing students to select members for their group by themselves.
  - \* Allowing students of a group to select the client/project they are interested in by themselves rather than having same assigned by the lecturer.



## Lecturer's Perspective:

- Numbers of free riding complaints were reduced when these mechanisms in use. Also noticed that, most of those free riding complaints coming from mixed groups.
- Able to identify free riders as early as possible which gave them the chance to take actions against them.
- Easier to handle group projects with less hassles.

## In conclusion

- Made a fair contribution to the existing literature on this subject.
- This research reports the **experience** and **results of adopting a variety of approaches** to reduce free-riding in the Information Technology project domain.
- Findings indicate that **most of the approaches adopted have been successful** in reducing free riding among members of IT group projects apart from **Peer review** process and **group formation** by their own.
- This leads us to conclude that more research must be done in this area.



Thank You!!!