Sri Lanka Institute of Information Technology
BSc (IT) – Year 3, Semester 1 & 2

Welcome to
Comprehensive Design/Analysis Project
(CDAP - I)

Gayana Fernando

Course Identification

- Lecturer in charge   – Gayana Fernando

- E-mail   – gayana.f@sliit.lk

- Phone   – 0117543611

Course Identification Cont..

- **Course Name** :   Comprehensive Design/Analysis Project
                                (CDAP - I)
                        :   Comprehensive Design/Analysis Project
(Multimedia) I

- **Course Code**   :   B 324 / M306

- **Credit Points** : Semester 1 (CDAP I) – 04
                                Semester 2 (CDAP II) – 04

- **Duration**   : Two Semesters

Mode of Contact

- **Lecture Sessions**
  - Weekday – Tuesday 8.30 am to 10.30 am

- **Group Discussions**
  - In lecture
  - Team meetings
  - Supervisor meetings

- **Meeting your Lecturer**
  - by appointment via e-mail: gayana.f@sliit.lk

Mode of Contact

- **Online Forum Discussions – via Social Network**
  - More details soon

- **Meet your Supervisor (by prior appointment)**
  - Together with Group Logbook

- **Moodle for Lecture Slides, (CDAP I & II)**
  http://courseweb.sliit.lk/

Why Project is important ?

- Convert theories into practical elements in real life

- Enhance your practical knowledge to meet industry requirements

- Improve your team work

- Improve your research abilities

- Benchmark your level with industry standards

Forming Groups...

- Not more than **3 in a Group** (Transferring students please meet the lecturer in charge)
- Repeat students should be grouped separately.
- Common interest in the Project
- Do you want diversity of backgrounds, ideas
- Beware!!, members you like, may not share the same interest in the Project

Best thing I learnt from University is that you should choose your Project Partner more carefully than your Life Partner

What do you need to do...?

- Attend all the Lecture Sessions

- Select a project and a supervisor (By 3rd week of February)

- Group account from the Lab Administrator (**under special circumstance**)
  - Eg. A PC can be assigned for each group with required software installed

Assessment

- Regular project status through CDAP Project Logbook (after project registration – twice a month)

- Six assessments using;

  - ✓ Presentations
  - ✓ Demonstrations
  - ✓ Reports
  - ✓ Viva
  - ✓ Research Paper

Tentative Time Line

- Project Registration   -   22nd February, 5.00pm
- Project Confirmation   -
- Proposal Submission   -
- Proposal Presentations   -
- SRS/RRD Submission   -
- SRS/RRD Presentations   -
- Prototype Demo
- Draft Report Submission
- Mid Review Demo
- Final Report Submission
- Final Presentation & Viva

Assessment Criteria

- Proposal Report   - 5%
- Proposal Presentation   - 5%
- SRS Report   - 5%
- SRS Presentation   - 5%
- Prototype Demo   - 15%
- Mid Review Report   - 5%
- Mid Review Demo   - 15%
- Final Report   - 10%
- Viva & Demo   - 30%
- Research paper (Published)   - 5 marks

Assessment - Penalties

- Penalty for late submissions of assessments
  - **5 marks** from entire group for specific assessment
  - **Delays** or **absence** for presentations would be marked as "0"
- Penalty for not meeting supervisors at progress reviews
  - **5 marks** deduction for individual at specific assessment
- Warnings for team members not performing scheduled & assigned tasks
  - First warning at Proposal presentation
  - Final warning at SRS presentation – Team member(s) will be voted out of the team and would have to carry out project separately with new scope.
- Attendance of is compulsory for all lectures

What are we going to discuss today..

- What is a Research Project?

- Purpose of final year Project?

- Selecting a project?

- Some issues in selecting a Project

What is Research?

- Research is investigation or examination and finding out something that is not already discovered.

- (No one knows everything, but everybody knows something. However to complicate matters often what   you know, or think you know, may be incorrect.)

- There are two basic purposes for research:
  - To learn something, or
  - To gather evidence.

Research

- Research comes from a prefix and a root word

RE + SEARCH

- Means "To Seek Out Again"
- In most research is indeed, a mater of seeking out ideas and materials already found or developed by others.
- Research is making discoveries – usually in order to put together in new ways, which is found

What is a Research Project?

- An important piece of work in your degree program, in which you get a chance to put forward your innovative ideas together with the knowledge you have gained in the degree course.

- Involve students in researching, developing, managing and achieving the objectives of the project.

- A major project activities that involves, defining of project objectives, preparation of research plan, preparation of design & implementation plan (if any) and a bar chart showing various stages of completion.

Purpose of the Research Project

- Provides an opportunity to demonstrate your knowledge & skills that can apply in a research application.

- A Benchmark of your ability to solve an industry problem using ICT.

- Improve your team work skills.

Some issues in selecting a Research Project

- Don't know how to find a Project

- Project may not interest one or more team member(s)

- No sufficient knowledge in the interest area

- Balancing the ambition with Realism

How do you select a Project?

- An idea by yourself, team members

- Source from an organization

- Current issue

- An area you may want to pursue for your future studies

- Talk to Supervisors

Other benefits

- Imagine Cup – Organized by the Microsoft

- NBQSA – (National Best Quality Software Awards) competition-An annual event organized by BCS

- Research Symposium - TOP Projects of the year

- Other national competitions & exhibitions
  - National Science Foundation (NSF)
  - Asia Pacific ICT Awards (APICTA)

Imagine Cup – Organized by Microsoft

- Microsoft is encouraging young people to apply their;
  - imagination,
  - passion and
  - creativity

- Technology innovations that can make a difference in the world – today

http://www.imaginecup.com/

National Best Quality ICT Awards (NBQSA)

- This is a national software competition conducts by BCS (Sri Lanka).

- Generally NBQSA follows the Asia Pacific ICT Awards competition model ensuring that regional / international standards are met.

- Gold, Silver and Bronze awards will be presented if the entries meet the required standards.

- Award winners will be eligible to participate at the APICTA competition, which will be held in a selected Asian country

http://www.nbqsasrilanka.org

http://www.apicta.org

Proposing a project

What is your approach?

Choose a worthy cause

- Build something that you all **believe in**.

- Do not choose something that will simply **fulfill the course requirement**s.

- Do not opt to **duplicate something** that has been done before unless you plan to do it in a novel way or achieve a **better outcome than the previous efforts**.

Know your market

- The **trouble with most good ideas** you have is that many **others had the same idea** long before you.

- If you have very little experience in the chosen product domain, it is helpful to do an **extensive examination of all similar products** in the market.

- Well, at least **Google around** a bit before you declare your idea 'ground breaking' or 'novel'.

- However, **do not plagiarize** things from existing products.

Target real users

If possible, choose to build something that you and your teammates can use so that you have some **real users close at hand all the time.**

Dream 'grand', promise 'doable'

- You should contribute something useful towards your grand vision **before the course ends.**

- Hopefully you will be motivated to **continue the project** towards your grand vision even after the course.

- Did you know that many successful products have **roots in class projects?**.

Generating Ideas

- You are now in a team

- Having lots of IDEAS

- Are they meaningful?

- You may have conflictions

- May need to find alternatives and

- Need to agree upon

Three successful categories

- Career interest
- Hobby interest
- Social issues

Steps

- Make a list…
  - List 3 Careers /Hobbies / Social issues that you might be interested.

Steps

- ## If it's Careers

  - list why those careers are fascinating and an idea about something specific and controversial within that career.

- ## If it's Hobbies

  - list ideas about something specific and controversial within each hobby.

- ## If it's a Social Issues

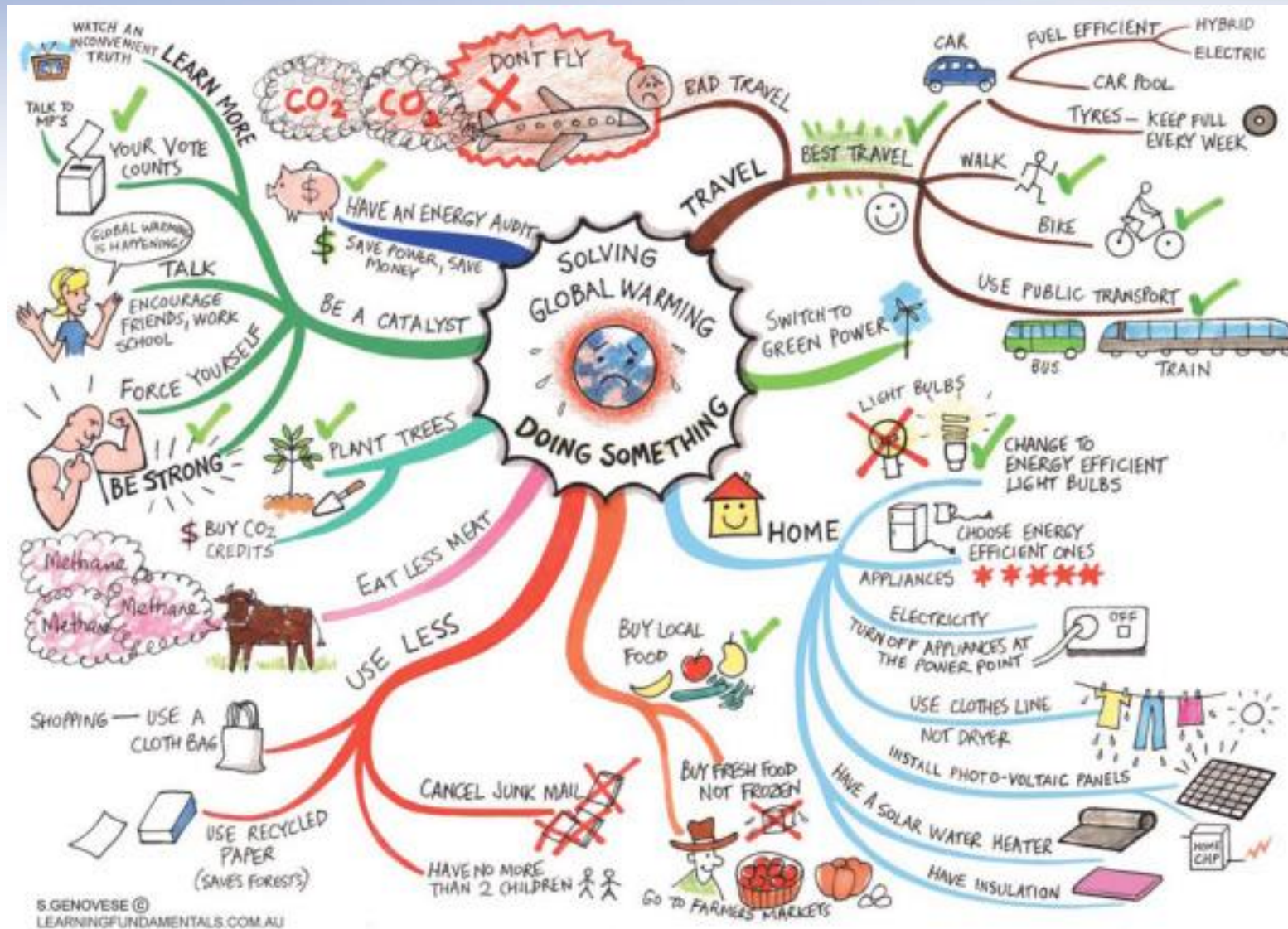 - list 3 arguments why it is important to solve those

Steps

- As a Group discuss pros and cons of each idea.

- Select one idea you all like.

Steps

- Draw a mind map to illustrate every aspect related to the idea.

Example

Steps

- Select one aspect where you can provide an ICT solution.
- That can be your research topic !!!

What do you need to do...?

- Before visiting your client organization
  - Send a 'E-mail – Subject: Letter of Intent' to the Lecturer in charge:
    - *Contact persons details and address of the organization you selected to do your Project*
    - *Your Project leader/members names/Student ID's*
  - You can collect the SLIIT Letter from the Lecturer in charge

What do you need to do…?

- Refresh your knowledge on Software Engineering principles.

  - **Analysis & Design Concepts (Available at SLIIT Library)**

    - Software Engineering – A Practitioner's Approach, Seventh Edition by Roger S. Pressman

    - Software Engineering – Eight Edition by Ian Sommerville

    - Learning UML 2.0 by Russ Miles & Kim Hamilton

    - The unified modeling language user guide – Grady Booche, James Rumbaugh, Ivar Jacobson

What do you need to do...?

- Get into forums and discussion boards.

  - Build up your professional **LinkedIn** profile today.

- Refer articles from reputed magazines and journals.

  - **IEEE Spectrum**

- Gather all tools and technologies that are required.

  - Development IDE's

  - Project Management Tools – Microsoft Project, Mind Mapper

  - Design tools – Microsoft Visio or Rational Rose etc

- Make sure you don't take the project for granted!

CDAP Goals 2021

- At least 5 Projects to win in reputed competitions

- 70% Research Publications locally and globally!

- Make you a IT Professional in 2022☺

By Next week

- Everybody should belong to a project group.

- All groups should have an idea about the research area.

- Each group would be given 3 minutes to pitch the research area.

Questions

Questions ?