# **MTRL 466 MEETING MINUTES**

| **Project Name:** | Process Modelling for Adhesive Bonding of Aluminum Automotive Sheet |
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| **Group:** | 1 |
| **Current Meeting:** | Wednesday, November 9th 2011 |
| **Minutes Prepared By:** | Adam Ohashi |

**Attendees:**

*Dr. Chad Sinclair*

*GROUP 1: Jerry Chang, Michael Fu, Judy Makmillen, Adam Ohashi*

**Agenda:**

* + **Progress Update!**

**Minutes:**

Meeting start time: 1:30pm

Meeting end time: 3:00pm

* Heating orientation:
  + Heating from 2 sides
    - If time allows, change calculations/model to perform 1 side heating
      * Low h value on one side
    - Mention 1 side heating on final report
* Dimensions of testpiece:
  + Epoxy = 1.0 – 2.0 mm
  + Al panels = 3.0 – 4.0 mm each
* Economic analysis:
  + Price paint booths
    - Capital costs, operating costs
    - Make sure operation kinetics are what we want
  + Energy consumption
    - Natural gas requirement of paint booths
* Recovery model:
  + Have pre-strain as a constraint
    - Need to show the dependence on pre-strain
* Process time:
  + Need to have approximate times for 1-1-1 method and 3-in-1 method
    - Can find approximate values from models
* Final report:
  + Should mention the comparison of kinetics of each model
    - Done through isothermal plots
      * Extent of cure, 6xxx strength, 5xxx strength vs. time
* Final presentation:
  + Remove some background material
  + No need for validation of models
  + Provide clear motivation for project
  + Define the problem
    - Objective, constraints (hard/soft), free variables
  + Models used, comparisons
  + Isothermal kinetics
  + Coupling of models + results
  + Economics
  + Recommendations/future work

**Action Items:**

* Revise midterm report section for use in final report
* Majority of project work needs to be done next Friday!
  + Coupled models working
  + Optimization complete
* **Next meeting: Friday, November 18th, 2011 @ 1:45pm**