
Latent Damage and Reliability in Semiconductor Devices

Advisor: Dr. Randall Geiger

Client: Dr. Randall Geiger, ECpE

Members (roles):

Sean Santella (Leader)

Jaehyuk Han (Webmaster)

Hayle Olson (Communication Leader)

David Ackerman (Key Concept Holder)

Weekly Summary:

We held two team meetings, an advisor meeting, and an instructor meeting this week. We calculated a temperature to use during the burn-in portion of our experiment. We practiced and presented our presentation to our instructor.

Meeting Notes:

Team Meeting (April 5th at 2PM in Coover 3014)

Duration: 1 Hour

Members Present: Sean Santella, Jaehyuk Han, Hayle Olson, David Ackerman

Notes: During this team meeting we practiced our final presentation and adjusted it accordingly. We also continued working on functionality of our burn-in PCB.

Team Meeting (April 7th at 1PM in Coover 3014)

Duration: 1 Hour

Members Present: Sean Santella, Jaehyuk Han, Hayle Olson, David Ackerman

Notes: During this team meeting we again practiced our final presentation and also worked on troubleshooting our stressing condition. We also successfully calculated a burn-in temperature that will accelerate the lifetime of our devices from 20 years to 1 week.

Advisor Meeting (April 7th at 2PM in Coover 3014)

Duration: 1 Hour

Members Present: Dr. Geiger, Sean Santella, Jaehyuk Han, Hayle Olson, David Ackerman

Notes: During this advisor meeting Dr. Geiger was able to meet us in the lab to help us troubleshoot our stressing issues. We discussed our calculated burn-in temperature that Dr. Geiger agreed was appropriate.

Instructor Meeting (April 8th at 12PM in Nuclear Engineering Conference Room)

Duration: 1 Hour

Members Present: Dr. George Amariucaj, Sean Santella, Jaehyuk Han, Hayle Olson,
David Ackerman

Notes: During this instructor meeting we presented our practice final presentation and were provided some positive feedback.

Weekly Accomplishments:

- Calculated a burn-in temperature.
- Confirmed the needed components with high temperature thresholds.
- Started developing a new PCB design for our burn-in boards.

Plans for Next Week:

- Design our project poster.
- Continue developing a new burn-in PCB design.
- Find a stressing condition that will destroy 50% of our devices.

Pending Issues:

- None

Individual Contributions:

Sean Santella: Attended both team meetings, an advisor meeting, an instructor meeting, practiced presentation, and performed burn-in research.

Jaehyuk Han: Attended both team meetings, an advisor meeting, an instructor meeting, and practiced presentation.

Hayle Olson: Attended both team meetings, an advisor meeting, an instructor meeting, practiced presentation, and wrote weekly report.

David Ackerman: Attended both team meetings, an advisor meeting, an instructor meeting, and practiced presentation

Hourly Contributions:

<u>Member:</u>	<u>Weekly Hours:</u>	<u>Semester Hours:</u>	<u>Yearly Hours:</u>
Sean Santella	5.0	31.0	84.0
Jaehyuk Han	4.0	22.0	58.5
Hayle Olson	4.0	29.5	76.0
David Ackerman	4.0	30.0	72.0

Semester Total: 112.5 Hours

Yearly Total: 290.5 Hours