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## Latent Damage and Reliability in Semiconductor Devices

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**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)

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**Weekly Summary:**

We held two team meetings and an advisor meeting this week. We were able to keep moving in the right direction in regards to finding a burn-in temperature. We are also still tinkering with our Stress PCB and the insulating varnish.

**Meeting Notes:**

Team Meeting (March 29<sup>th</sup> at 2PM in Coover 3014)

*Duration:* 1 Hour

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

*Notes:* During this team meeting we applied more insulating varnish to various parts of the resistor string that we've created for our Stress PCB. We also continued our research to find a correct burn-in temperature.

Advisor Meeting (March 31<sup>st</sup> at 1PM in Coover 1219)

*Duration:* 1 Hour

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

*Notes:* During this advisor meeting we were able to discuss with Dr. Geiger our results from our temperature calculations. He advised that we reach out to someone at Micron or TI for further guidance, or try to find some more reliable information on the Internet. He emphasized that our work towards fixing the Stress PCB was headed in the right direction.

Team Meeting (March 31<sup>st</sup> at 2PM in Coover 3014)

*Duration:* 1 Hour

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

*Notes:* During this team meeting we worked on our final presentation along with testing and tinkering with the Stress PCB. We also worked on the functionality of our burn-in PCB.

## Weekly Accomplishments:

- Applied the insulating varnish to the resistor string.

## Plans for Next Week:

- Research and calculate a burn-in temperature.
- Research components with high temperature thresholds.
- Start developing a new PCB design for our burn-in boards.
- Find a stressing condition that will destroy 50% of our devices.

## Pending Issues:

- None

## Individual Contributions:

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

Jaehyuk Han: Attended both team meetings and an advisor meeting.

Hayle Olson: Attended both team meetings and an advisor meeting, worked on final presentation, temperature research, and wrote weekly report.

David Ackerman: Attended both team meetings and an advisor meeting, tinkered with the stress PCB, and worked on final presentation.

## Hourly Contributions:

<u>Member:</u>	<u>Weekly Hours:</u>	<u>Semester Hours:</u>	<u>Yearly Hours:</u>
Sean Santella	5.5	26.0	79.0
Jaehyuk Han	3.5	18.0	54.5
Hayle Olson	5.5	25.5	72.0
David Ackerman	4.5	26.0	68.0

**Semester Total: 95.5 Hours**

**Yearly Total: 273.5 Hours**