6.978. FINAL MEETING 12 DECEMBER

- TODAY: FINAL CLASS IN COURSE 6.978
  - > STATUS OF PROJECTS
  - > ACTIVITIES DURING IAP
  - > ~~SOME OPPORTUNITIES~~ LOOKING AHEAD.
  - > READING REFERENCES
  - > TIME FOR QUESTIONS
  - > COURSE FEEDBACK QUESTIONNAIRE
  - > CLASS PHOTOS !

- PROJECT STATUS:
  - > 19 Projects got onto chip set: let me mention so you know for sure!
    one by Brock, Boughton, Bryant; Leung; Cherry; Coln; Frank; Frankel; Miratsuka; Lam; Levitt; Olson; Otten Perea; Roylance; Shaver; Snyder; Steele; Stern; Yang;
    one by Bowen, Azoury; Rubinstein;
    one by Goldikener; Westbrook.
  - > 6 projects didn't make it. These were ones for which I didn't have enough project report info to evaluate, or which were finished right near the last minute. Some of these were very interesting and you might try to get them onto future M.I.T. chip sets.
  - > Things now look quite good for return of completed wafers by early to middle January. I can't promise this, but it will likely happen.
  - > So, that brings us to activities during IAP.

IAP: Assuming that wafers return during early to mid Jan: There will be two major activities during IAP:

1. Packaging & electrical testing by Faculty/Staff in the materials science area.

2. Functional Testing, organized by Prof. Don Allen.

Dimitri Antoniadis will discuss plans/procedures to be used in packaging

Don Allen will discuss plans for electrical testing.

HANDOUT QUESTIONNAIRE FOR INFO

* LETS GET A LIST OF STUDENTS WHO HAVE PROJECTS ON THE CHIP SET WHICH THEY WISH TO TEST:

NAME, WHERE CAN BE REACHED DURING IAP (INCL PHONE), DO YOU WISH TO JOIN JON ALLEN'S EFFORT OR DO YOU PLAN TO TEST INDEPENDANTLY?

WE WILL PACKAGE & BOND UP SEVERAL CHIPS FOR EACH STUDENT IN THIS GROUP

ALSO, NOTE: I WILL FAVOR TESTED PROJECTS FOR WHICH I'VE RECEIVED RESULTS, WHEN I RUN OFF MORE ARTIFACTS (VERSATEC PLOTS, SOLID COLOR PLOTS, etc.). I.E.: LET ME KNOW IF IT WORKED, OR IF NOT, WHAT YOU FOUND OUT WENT WRONG.

Include Arpanet Mailbox if any.

ARTIFACTS: INCLUDE ADDR. WHERE I CAN MAIL ARTIFACTS. I'D LIKE EVERYONE TO HAVE A FEW UNMOUNTED CHIPS - BE SURE TO LOOK AT THEM UNDER VARIOUS MICROSCOPES - AND MORE PLOTS OF YOUR PROJECT --- ESP COLOR PLOTS. IF YOU AREN'T GOING TO BE AROUND IN THE SPRING - SO INDICATE - AND SEND ADDRESS LATER.

MY ADDRESS AFTER FEB 1st WILL BE --- PARC ---

ANY QUESTIONS ON PROJECTS ? IAP ? ETC.

LOOKING AHEAD : OPPORTUNITIES :

Grad. work ; Teaching ; Research ; Development ; Entrepreneurial

[; right now: helping the arena grow : participating in exploring the academic / industrial collaboration.]

[; in helping do this right here at M.I.T. For example, participation in next fall's course.]

READING REFERENCES:

I brought along several of the recommended reading references, and I'd like to comment a bit about them: [You might want to look at these after Class to see if you think they're worth pursuing]

Now that you are really on top of this material, you might want to add a few of these to your library - for expanding your background further into adjacent fields, or for future reference: ⊙ buy rec.

⊙ Sci. Amer: Special Issue on Microelectronics Sept '77. IS available in reprinted hard-cover form.

Very good general background reading, and to show others what this arena is all about. Lots of pictures.

⊙ A.S. Grove, "Physical and Technology of Semiconductor Devices". a bit dense, but still the classic on process technology and device physics. Excellent Reference.

⊙ P. Richman "MOS Field Effect Transistors & Integ. Circuits" Very readable, excellent reference text & tutorial text on MOS-FET's. Excellent supplement to CH. 1.

- Penney & Lau (Eds) "MOS Integrated Circuits". An early general text on MOS-LSI containing useful info. A lot of info on inverter characteristics, etc.
- TI "Semicond. Memory Design & Application". If you're interested in memory subsystems, consult this reference.
- Zvi Kohavi: "Switching & Finite Automata Theory" Good textbook
⊙ Bell & Newell "Computer Structures: Readings and Examples". A classic encyclopedic work on computer architecture. Lots of history and examples. A new edition is about to come out - a recommended buy. Not much if anything on int. circ. / int. syst. but still very interesting.

⊙ AND, OF COURSE: NEXT SUMMER, BE SURE & BUY MEAD & CONWAY

- LET'S TAKE 10 MINUTES -- FILL OUT COURSE FEEDBACK QUESTIONNAIRE.

NOTE:
- CROSS OUT REC. INST. → REPLACE LECTURER: LYNN CONWAY
- PUT N.A. IN T.A.
- PUT N.A. IN ITEMS 11, 12.

- TIME FOR ANY REMAINING QUESTIONS / COMMENTS ABOUT COURSE, FIELD, ETC.

- BEFORE YOU ALL TAKE OFF - I WANT YOU TO KNOW WHAT A GREAT EXPERIENCE THIS HAS BEEN FOR ME - IT'S BEEN A REAL PRIVELIDGE TO TEACH SUCH A FINE GROUP OF STUDENTS.

INDIVIDUALLY AND AS A GROUP YOU'VE ACCOMPLISHED FAR MORE, & IN MUCH LESS TIME, THAN ~~STUDENTS~~ AT ANY OF THE OTHER SCHOOLS. I'M VERY PROUD OF YOUR ACHIEVEMENTS.

I HAVE A FEELING THAT SOME GREAT THINGS WILL BE DONE [redacted] BY STUDENTS IN THIS CLASS - I'D ENJOY HEARING ABOUT YOUR ADVENTURES IN THE FUTURE.

I'D REALLY LIKE TO REMEMBER YOU ALL - AND I'D APPRECIATE IT IF YOU'D LET ME TAKE A COUPLE OF PICTURES OF THE WHOLE CLASS - - -

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- AFTER CLASS: I'VE GOT REFERENCE BOOKS HERE IF YOU WANT TO LOOK AT THEM, AND ALSO SOME PREVIOUS PROJECTS FOR THOSE WHO HAVEN'T HAD A CHANCE TO LOOK AT ANYTHING.