Spring 2020
ECE 8230: Integrated Circuit Technology
Prerequisite: ECE 6060 or Permission of Instructor
Instructor: R. Singh, Riggs 206
                   Phone: 656-0919: Sec: 656-5650: e-mail: srajend@clemson.edu:
                   Mobile; 864-710-1311
Class Time and Place: T, Th: 3.30-3.45 Room: Riggs 219

Physical and chemical principles underlying the major processing operations used in the fabrication of integrated circuit semiconductor devices, diagnostic testing, and factor affecting device performance, yield and reliability will be covered. An additional emphasis will be placed on the study of issues that are related to Design for Manufacturability. New applications that will further accelerate the growth of IC industry will also be examined. Disruptive Nanoelectronics will also be covered.

COURSE MATERIAL:
(1) Nanoscale CMOS VLSI Circuits, Sandip Kundu and Aswin Sreedhar, McGraw Hill, 2010
(2) Various Journals and other Publications
GRADING: Total score (100%) will be counted as given below:

Home Work and Pop Quizzes:	15 %
First Quiz	15%
Second Quiz	15 %
Final:	15%
Team Paper (written):	20 %
Term Paper & other presentations (oral)	20%

A grade: 90% or more
B grade: <90 % but = or >80%
C grade: <80% but = or >70 %
D grade: <70% but = or >60%
F grade: <60%

DEADLINES: All deadlines must be followed. Only in real emergencies (as per university regulations) deadlines will be extended. Failure to meet deadlines means, zero marks for the particular homework, term paper or test etc.

DEADLINES FOR TERM PAPER: (detailed instructions will be provided in following weeks): Students who have taken ECE 6060 cannot choose the same topic they had in last semester.

EXPERTISE REQUIRED: Matlab or other equivalent software tools, Excel Spreadsheet

ACADEMIC HONESTY: University Rules and Regulations, Zero tolerance for academic misconduct.

ATTENDENCE POLICY: University Rules and regulations
 Random Pop Quizzes at any time of the class will be given. Without any real emergency, absence means zero score for the pop quiz.

RULES FOR TERM PAPER AND TEST: Any information taken from the literature must be cited (complete source per IEEE Format)**.** Read the information and write in your own words. If you have to use the information as written in the document, use as a "Quote".