Senior/Staff FEOL Consultant

- Position Location:

  - Shanghai, China
  - Relocation for this position is not available

Job Description:

Work on a team consisting of PDF and client engineers to identify and solve the performance and yield problems of advanced process

The responsibilities include:

- Identification, diagnosis, and correction of characteristics of the FEOL process or layout which limit product yield and/or performance.
- Design of experiments for FEOL process module improvements.
- Statistical analysis of manufacturing data and simulation.
- Projects are focused on leading edge semiconductor products and processes.
- The work is focused on specific problems and must be performed in a timely and efficient manner.
- The position requires continuous interaction with clients at both the engineering and management level.

Required Skills and Experiences:

Experience in integration modules including STI isolation, gate, spacer, salicide and stress engineering.

Experience and sound understanding of the modules used in the front-end of the line (FEOL) process including implantation, diffusion, photolithography, etch, and CMP modules.

Sound understanding of MOSFET device physics.

Firm grasp on sequence and purpose of typical CMOS semiconductor manufacturing processing steps.

Experience in determining design rule specifications.

Experience using statistical data analysis techniques (t-test, linear regression, ANOVA) and statistical analysis software tools (Splus, SAS, RS1, JMP, Matlab).

Experience using design of experiment (DOE).

Excellent written and oral communication skills.

Sound computer skills.

Highly professional and self-managed.

Proficient reading writing and speaking English and Mandarin

Job desirables:

- Experience with modern (28nm, 14nm, 10nm or beyond) process integration issues.
- Sound understanding of product testing and analysis methods (logic function test, SRAM/DRAM memory test, frequency/speed test, BIST, etc.).
- Sound understanding of failure analysis techniques and good judgment concerning best application of such techniques.
- Experience with TCAD software, including process and device simulation.
- Experience with PC and UNIX and the ability to write small scripts.
- IDM, Foundry or Fabless company experience.
- Knowledge of specific product categories such as SOC, DRAM or FLASH.

Special working conditions:

1. May require extended on-site presence (>6 month) at client sites worldwide
2. Seeking individual to work in Asia, but may be based in China or Taiwan.