

Master Nanosciences et nanotechnologies

Integration and reliability

Responsable	Descriptions	Informations
Jean-luc AUTRAN jean-luc.autran@univ-amu.fr	Code : S58PH4E1A Nature : Domaines : Sciences et Technologies	Composante : Faculté des Sciences Nombre de crédits :

CONTENU

This course is an introduction to the issues of component integration in Ultra Large Scale Integration (ULSI) microelectronics and the electrical and radiative reliability of advanced CMOS technologies. The integration and reliability aspects will be addressed through a description of the physics of the components and the physical phenomena that govern i) the reduction of the dimensions of the devices at the deca-nanometer scale and ii) their sensitivity to the mechanisms of electrical degradation or induced by radiation, natural or artificial.

Topics :

- Evolutions and integration rules of components in microelectronics ULSI
- Electrical reliability of advanced CMOS technologies
- Radiation effects and radiative reliability of advanced CMOS technologies

PRÉ-REQUIS OBLIGATOIRES

Quantum mechanics

Physics of nanodevices

VOLUME HORAIRE

- Volume total: 27 heures
- Cours magistraux: 18 heures
- Travaux dirigés: 9 heures

CODES APOGÉE

- SNNDU06J [ELP]

M3C

Aucune donnée M3C trouvée

POUR PLUS D'INFORMATIONS

[Aller sur le site de l'offre de formation...](#)



Dernière modification le 29/06/2023