FIELD OF STUDY : INDUSTRIAL
SPECIALTY : COMPUTER ENGINEERING
OPTION : COMPUTER SCIENCE AND NETWORKS

1. OBJECTIVE OF TRAINING

The Computer Science and Networks programme is designed to produce computer personnel capable of applying the use of computer in most areas of data analysis.

2. EXPECTED SKILLS

❖ **General skills**

o Self-employed, work together as a team ;
o Analyse, synthesize professional document (French, English) ;
o Oral and written business communication (French, English) ;
o Participate in / conduct an approach to the management of a project ;
o Know and exploit professional and institutional networks in the computer sectors.

❖ **Specific skills**

o Install and manage a Computer system ;
o Design and run efficient programmes in a wide spectrum of fields, and in various languages ;
o Advise on the installation and management of Computer facilities ;
o Detect technical faults in a Computer installation ;
o Carry out routine (preventive) maintenance of Computer facilities ;
o Install and configure hardware and software of networks.

3. CAREER OPPORTUNITIES

o Technician in design office;
o Application developer ;
o System and network integrator ;
o Computer Systems installer ;
o Computer park manager ;
o Hot liner ;
o Computer system administrator ;
o Local network administrator.

4. PROGRAM DURATION

For a period of two years, a set of theoretical and practical courses is administered to students with a view to obtaining a Higher National Diploma (NHD) sanctioned by MINESUP.

5. CONDITION FOR ADMISSION

Direct registration on file study :

- A hand written application adressed to the Director of SOUTH POLYTECH ;
- A complete registration form available on campus ;
- A photocopy of birth certificate ;
- A photocopy of A/L certificate ;
- Registration fees : 35,000 FCFA ;
- File study fees : free of charge ;
- Annual medical coverage : 5,000 F CFA.

6. PEDAGOGICAL APPROACH

- Lectures ;
- Practical work and personal work ;
- Immersion courses in the professions accompanied by a teaching body and company executives.

7. EVALUATION TECHNIQUES

- Continuous monitoring for each lecture ;
- An exam session (oral or written) at the end of each semester organised according to the subjects registered for the semester ;
- Writing of an internship report defended in front of a jury at the end of the cycle ;
- National HND exam.

8. ORGANISATION OF COURSES UNITS

FIRST SEMESTER

Code	Course title	Number of credits
CSN 111	Engineering Maths I	5
CSN 112	Basic environment I	4
CSN 113	Digital electronics	3
CSN 114	Database design I	5
CSN 115	Introduction to software engineering	7
CSN 116	Introduction to algorithms	3
CSN 117	Bilingual training	3
Total		30

SECOND SEMESTER

Code	Course title	Number of credits
CSN 121	Engineering maths II	4
CSN 122	Basic environment II	5
CSN 123	Computer architecture	4
CSN 124	Database design II	5
CSN 125	Programming I	5
CSN 126	Data communication and networking I	4
CSN 127	Economics and Enterprise Organisation (EEO) and Law	3
Total		30

THIRD SEMESTER

Code	Course title	Number of credits
CSN 231	Engineering Maths III	5
CSN 232	Basic environment III	4
CSN 233	Computer contruction	4
CSN 234	Data communication and networks II	5
CSN 235	Computer graphics and animation	5
CSN 236	Introduction to Human Computer Interface (HCI)	4
CSN 237	Enterprise creation and Civic education and Ethics	3
Total		30

FOURTH SEMESTER

Code	Course title	Number of credits
CSN 241	Engineering maths IV	5
CSN 242	Introduction to artificial intelligence and expert systems	4
CSN 243	Assembly language programming	4
CSN 244	Programming II	4
CSN 245	Computer network administration and security	4
CSN 246	Internship	6
CSN 247	General economics and General accounting	3
Total		30