



3RD NATIONAL COMPETITION ON DESIGN OF PROCESS EQUIPMENT AND PROCESS PLANTS



RAW MATERIALS RESEARCH AND DEVELOPMENT COUNCIL (RMRDC)
(Federal Ministry of Science and Technology)
in collaboration with

NATIONAL FOUNDATION FOR PROCESS EQUIPMENT DESIGN (NAFPED)

Conservation and optimal utilization of energy is vital in the process industry especially where substantial level of water reduction is required in the drying process. It has therefore become imperative to encourage local design of efficient drying equipment and heat exchangers that would not only optimize energy consumption but would also be affordable to the small and medium scale industries. Engineering teams are hereby invited to indicate interest in participating in the 3rd National Competition on Design of Process Equipment which focuses on **Drying Equipment and Heat Exchangers**. The equipment include (but are not limited to) the following:

Tray dryers; Tunnel dryers; Pneumatic dryers; Trough dryers; Bin dryers; Belt dryers; Vacuum dryers; Continuous -flow heat exchangers; Plate heat exchangers; scraped surface heat exchangers, etc.

The design, to be carried out over a period of nine (9) months is expected to address the following areas:

- Feed Characteristics/Product specification
- Process Design (Mass, Momentum and Energy balance)
- Mechanical Design (Material and Stress analysis, detailed mechanical drawings)
- Electrical/Power/Instrumentation and Control design
- Materials selection (suitability and availability)
- Economics of equipment production (Bill of quantity, Process economics)
- Safety, Health, Environmental and Ergonomics considerations.

ELIGIBILITY

Each team must consist of at least three members drawn from various relevant fields of Science and Engineering.

PRIZES

A panel of judges will select the best designs which will attract various prizes.

- **First prize- Two Million Naira**
- **Second prize- One Million Naira**
- **Third prize- Five Hundred Thousand naira**

PROCEDURE FOR APPLICATION

Intended participants should please send their application with the following details:

- Name of team leader
- Names of all team members stating their qualifications/areas of specialisation
- Team's contact/ mailing address, e-mail and telephone number(s)
- Brief description and application of the proposed equipment (not more than two pages)

Application, which **closes 45 days from the date of this advertisement**, should be addressed to:

**The Director-General/CEO
Raw Materials Research and Development Council,
17, Aguiyi Ironsi Street, Maitama
P. M. B. 232, Garki, Abuja
(Attention: Director, Industrial Plant and Equipment Department (IPED))**

It should be marked at top left hand corner of the envelope **“NAFPED COMPETITION”**

Electronic copy may be sent to applications@nafped.org

All submission would be acknowledged via text message to the phone number of the team leader. If an application is not acknowledged within one week of submission, please call 07027049576 to confirm receipt.