

Education for Laser Based Manufacturing (ELbM) – Second Call for Applications

Education for Laser-Based Manufacturing (ELbM) project is a consortium of academic and industrial institutions formed in response to the shortage of qualified teaching/research faculty in manufacturing in Africa. Through combination of industrial and academic resources, the project aims to train human resource to support manufacturing in Africa, while availing modern equipment for training in laser based manufacturing. The academic partner institutions are: Jomo Kenyatta University of Agriculture and Technology (JKUAT), Botswana International University of Science and Technology (BIUST), Stellenbosch University and Federal University of Petroleum Resources, Effurun (FUPRE). Industrial partners are laser enabled manufacturing research group from the Council for Scientific & Industrial Research (CSIR/NLC/LEM) group, African Laser Centre (ALC), Retecon (Trumpf), South Africa (associated partners) with technical support from University of Bologna, Italy.

ELbM project invites applications from African nationals interested in Masters and PhD research studies in laser-based manufacturing processes offered at the four partner institutions. Staff members of eligible institutions are also invited to apply for research exchange. The scholarships are offered for courses associated with manufacturing engineering such as industrial & manufacturing engineering, mechanical engineering and metallurgical & materials engineering among others.

Scholarships offered under the ELBM scholarship are classified as follows:

1. **Full degree scholarships** for Masters and Doctoral students at one of the ELbM institutions.
2. **Exchange opportunities (Masters and PhD):** Students registered as full-degree students at one of the partner universities can spend a minimum of 10 months at a partner institution in the consortium and return to their home institution after the exchange period to complete their degree at the home institution. Exchange students will spend their period at the host university as researchers mainly, being engaged in specialised theoretical or methodological training, or field studies and they will closely co-operate with their host and home institution supervisors.
3. **Academic and administrative staff mobilities:** Staff employed by the Higher Education Institutions (HEIs) of the consortium are eligible to apply for support for short term mobility opportunities such as sabbatical research periods, guest lecturing, curriculum development, knowledge and resource sharing trips etc.

The scholarships include: Roundtrip flight ticket and visa costs; Participation costs such as tuition fees, registration fees and service fees where applicable; Comprehensive Travel Insurance (Health, Accident and Travel); A monthly subsistence allowance for the mobility period; Settling in Allowance; Research Costs for mobility for maximum of 10 months (Masters) or 12 months (Doctorate) or more. For female masters and doctoral students, an extra allowance corresponding to the monthly subsistence allowances will be paid per academic year, for mobility equal or longer than 2 academic years.

Eligibility:

To be eligible for the full scholarship, prospective masters and doctoral students must:

- Be a national and/or resident of an eligible country.
- At the time of the application for a scholarship, be registered/admitted in their final year or have obtained their most recent degree (or equivalent) from:
 - One of the higher education institutions included in the partnership (Target Group 1);
 - A higher education institution of African countries not included in the partnership (Target Group 2)
- Have sufficient knowledge of the language of instruction in the host institution.
- Meet the specific requirements of the host institution

Staff exchange mobility: To be eligible for ELbM scholarships, staff must:

- Be national(s) and resident in any of the eligible countries.
- Work in or be associated with a partner higher education institution.
- Have sufficient knowledge of the operational language in the host institution.

Eligible countries

- **Central:** Burundi, Cameroon, Central African Republic, Chad, Congo, Congo (DRC), Equatorial Guinea, Gabon and São Tomé and Príncipe
- **Eastern:** Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Mauritius, Rwanda, Seychelles, Somalia, Sudan, South Sudan, Uganda and Tanzania
- **Northern:** Algeria, Egypt, Libya, Tunisia and Morocco
- **Southern:** Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe
- **Western:** Benin, Burkina Faso, Ivory Coast, Cape Verde, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo

Application:

- Scholarship will be awarded based on admission at the partner institution. Candidates should, therefore, apply for admission in the host institution, alongside application for the ELBM scholarship.
- Degree seeking scholarships at Stellenbosch must apply to both the university and the Department of Industrial Engineering between 1st March to 31st August of each year of application. Stellenbosch University requires all degree seeking scholarship applicants to pass entrance examination prior to admission.
- All credit seeking scholarship applicants, in consultation with supervisors from both home and host institutions, must provide a detailed research plan/study plan and budget for approval in the host institution to ensure that the required work can be undertaken.
- All applicants for staff exchange, in consultation with host institution's collaborator, must provide a detailed research plan and budget prior to arrival for approval to ensure that the required work can be undertaken.
- Identify institution of choice and contact the institution representative for further information or visit the website <https://elbmmobility.org/>

Institution	Deadline
Botswana International University of Science & Technology, (BIUST), Botswana olakanmie@biust.ac.bw	September 30, 2021
Federal University of Petroleum Resources, Effurun, (FUPRE), Nigeria. otanocha.omonigho@fupre.edu.ng	September 30, 2021
Jomo Kenyatta University of Agriculture & Technology (JKUAT), Kenya hndiritu@eng.jkuat.ac.ke	September 30, 2021
Stellenbosch University (SU), South Africa. natashasacks@sun.ac.za	July 31, 2021 (Masters) August 31, 2021 (PhD)

Further information on the project can be found on the website at <https://elbmmobility.org/>