

## Presentation of the Digi-Mechanics-School project

How can you support us? See Page 3

### APPROACH IN BRIEF

The Ghatronic Foundation International was registered in January 2018 (see founding team). After several discussions and research, the four friends decided to find a seminar school with the concept of modern digital-technical, future-orientated, further-training seminar for multipliers in the vehicle sector.

### VISION

The Foundation intends to be an institution of excellence in vocational training for mechanic professionals for trainees, trained mechanics, shop owner or master and all young women or men to ensure a sustainable employment. The Foundation would thereby like to ensure:

- a quality standard in electronic and computerised car-repairing in the informal sector.
- Organizing a financing facility (microcredit) for electronic equipment and diagnostic modules needed for quality repairs.
- Establishment of Digital Mechanic Centre in each district capital in Ghana with seminar leaders trained by us.

### PROJECT OBJECTIVES

The seminars are tailored to the educational background of the participants, so that at the end of the project all participants, should be able to perform the following activities:

- Analysis of defects in vehicles equipped with digital systems
- Remedying identified deficiencies with the help of acquired knowledge.
- With the knowledge, the seminar participants can receive sustainable advanced vocational training, which they can use as multipliers.

### MISSION

The Digi-Mechanic-School is a future-oriented seminar for all car mechanics. It`s for trainees, trained mechanics, workshop owners or master craftsmen. The seminars will be tailored to suit the needs of the educational background of the participants so that at the end of the project, all participants should be able to analyze the defects in cars equipped with digital systems and use the acquired knowledge to repair any identified defects. There are various seminar-contents, levels offered. The seminars are to be filled with gender parity in mind. For young women or men who are interested in IT technology and who are interested in analyzing digital defects in cars and helping mechanics identify and fix the electronic defects.

It is envisaged that the seminar participants can finance a diagnostic module with the help of a microcredit and thus become self-employed as a service provider. For young Ghanaian women this would be a clean, interesting job in IT.

Through cooperation with organizations and companies in Germany (Manager without borders, Würth GmbH & Co. KG, Forum Afrikanum e.V., Chance for African Youth e.V., S.H.A.R.E. Stiftung e.V.) and in Ghana (West African Vehicle Academy Ltd., GIZ GmbH) the project is supported with professional know-how. Even in the initial phase Ghanaian seminar leaders are to be trained, through this multiplier effect many mechanics can be reached.

Our aim is to set up a seminar school in every regional capital in Ghana. With support of Ghatronic Foundation, participants who are trained in Accra can set up a seminar school.

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**Tasks in the financial sector:**

- In addition, funding will be developed for the purchase of electronic equipment and diagnostic modules needed for quality repairs (and "start-up" for young women and men, modules, second hand and new).
- Financial support is sought for hosting the first seminars for the seminar leaders, for example costs of flight.
- Cooperation and the necessary support are organized and sought in Germany. The repair shops in Ghana are to be networked with a network of manufacturers of digital measuring and testing devices.

**SOCIAL DEVELOPMENT AND ENVIRONMENTAL PROTECTION**

Sooner or later, many young Ghanaians who engage in traditional vehicle repair will become unemployed as modern vehicles with electronic and digital systems will dominate the market. To protect them from unemployment, the seminar will offer participants the opportunity to learn how to diagnose and repair digital cars. Thus, cooperation with mechanics in the informal sector, who may be illiterate or do not speak English, may take place.

The following activities are planned the first seminars:

1. Even in the initial phase Ghanaian seminar leaders are to be trained by German teacher. And with this multiplier effect many mechanics can be hired by us as a digital - technician teacher, or
2. are employed in our workshop,(see 3) or in our office, to advise the trained mechanics with further inquiries; (There are fixed times at which the office can be reached to answer questions from trained people and to assist mechanics, such as workshop managers.)
3. A mechanical workshop, (with a male and female mechatronic trained and employed by us), will be set up with a tool kit for car repairs and several test facilities and modules for digital car repairs. Here, a repair amount is required by the "car customers". With this income, the costs of the Digi-Mechanics-School can be covered.
4. Environmentally friendly results could be:
  - The electronic controls of the engines will be optimized so that they are optimally adapted to the climatic conditions in Ghana;
  - promotion for the implementation of unleaded gasoline to ensure the functionality of the catalysators

## SERVICE AT START

The workshop and seminar room will be in Accra, 356 George Bush Motorway, Awoshie, Waterworks. Existing organizational background for the training program:

- Rooms in a hostel for apprentices in the neighborhood are available.
- A seminar room equipped with computer; Internet connection is available.
- Teachers or seminar leaders are wanted.



## SUSTAINABILITY

The association aims that the Digi-Mechanics-School will be independent from donations and German education experts after two years.

1. digital vehicle diagnosis and repair on customer vehicles are carried out in the workshop during the seminars for a fee.
2. By directly generating further seminar Ghanaian teachers from the internal participants.

### How can you support us:

- Know-how in digital vehicle diagnosis - we like to meet with "people from the field" here in Stuttgart for discussions to expand our knowledge.
- We are looking for contact in any form to the companies around Stuttgart who could support us with modules, IT software and know-how.
- We are looking for contacts with organizations in Germany and Ghana (e.g. BMZ and GIZ), who either help us set up the workshop or accompany the project in order to further that the multiplier effect is guaranteed and we can develop it nationwide in the district capitals of Ghana.
- And of course, help us with a donation to the account:

**Forum Afrikanum e.V., IBAN: DE28 6009 0100 0526 5050 10, BIC: VOBADDESS**

## FOUNDING TEAM AND RESPONSIBILITIES

**Ulrike Beck** is a professional artist and teacher. She was a lecturer at the University of Nürtingen in the field of urban planning.

**Charles Owusu Marfo** is a professional economist with a master's degree in economics (specialization: Small Business Development)

**John Kwasi Afriyie, PhD, MGhIE**, is an Associate Professor in Mechanical Engineering at KNUST (Kwame Nkrumah University of Science and Technology); specializing in Renewable Energy, Thermo-Liquids, Machine Maintenance and Repair.

He is an External Examiner for Post-Graduate courses in the Department of Mechanical Engineering at KNUST. Prof Afriyie is a member of the Ghana Institution of Engineering (GhIE) and currently the representative of GhIE on the Regional Tender Review Committee of the Ashanti Regional Co-ordinating Council. He is also a member of the Board of Governors of the Ramseyer Vocational/Technical Institute in Kumasi.

**Wolfgang Theilacker-Beck** is an engineer for mechanics and vehicle technology.

**John and Ulrike** are responsible for the educational direction of the seminars;

**Ulrike** for the PR; **Charles** for Finance and Personnel Planning, he will take over the seminar management;

**John** will organize further expansion in Ghana; **Wolfgang** takes over the technical planning.

In the initial phase **Ulrike and Wolfgang** will organize contacts in Germany.

### History of the founding team

The Ghatronic Foundation International was registered in January 2018 in Ghana. The founding members have known each other for more than 20 years. Ulrike Beck, Wolfgang Theilacker-Beck, John Kwasi Afriyie and Charles Marfo met in Germany when Charles and John studied here. After graduating in 1998, Charles, John and Wolfgang worked together on projects in Ghana on renewable energy, the production of solar lanterns, solar water heaters, electrification of small rural clinics and the production of solar dryers and the construction of salt ponds. After several discussions about the future of traditional and informal car repair shops, the four friends decided to set up a seminar school with the concept of a modern digital-technical training for the vehicle sector.