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RESEARCH ARTICLE

# Meta Engineering and Construction Corporation

## Imhotep Paul Alagidede

Nile Valley Multiversity, Bono East, Techiman, Ghana; University of the Witwatersrand, Johannesburg, South Africa; Simon Diedong Dombo University of Business and Integrated Development Studies, Upper West Region, Wa, Ghana.

**Abstract:** The construction industry has lagged behind other sectors and in many countries resisted reform. The provision of quality, affordable and sustainable infrastructure for economic development is tied to the knowledge of alternatives. For the past thousand years, the construction industry has relied on very narrow base of materials and obsolete technology. The cost and maintenance requirements of existing construction is inadequate to address the many needs of modern society. Meta Engineering and Construction is a direct response to these hurdles, providing timeless solutions to time bound problems.

#### **Keywords:**

## The Meta Construction Revolution

Solutions to the building and construction industry bottlenecks exist. Meta Engineering and Construction Corporation (MECC) is a new world company that provides simple, sensible, and sustainable solutions to the building and construction industry. MECC is dedicated to delivering affordable, livable shelter for all in the alternative and complementary housing, mega and super structures enclaves.

The company and its affiliates offer general contracting, preconstruction planning and comprehensive project management services, including but not limited to the scheduling of manpower, equipment, materials and subcontractors, and engineering and architectural value chains.

Using modern and indigenous science, MECC delivers both products and services, consultancy and advisory services for improving the built environment, and with fresh perspectives for infrastructure and fixed capital formation. This company offers state of the art and alternative solutions in all the nuts and bolts of local and global construction

industry covering investment and development (commercial and residential real estate, construction financing and operations), engineering (structural, design and installation) as well as survey, simulation, automation, energy and advanced manufacturing.

## The Tenets of a Great Construction Company

Given the web of activities that fuses into buildings and structures, it is required that the agents and participants of the construction industry portray specific qualities. A good company must be built on exceptional talent, quality service and product delivery. The organisational culture should be family oriented and founded on respect for human values, integrity and service. In the new age of reform and revitalisation, construction companies must imbibe the reputation to utilise available resources judiciously and to deliver projects within timeframes and budgets as well as the implementation of fit-for-purpose integrated management system that ensures that services are carried out at a safe, high quality levels with limited impact to the local environment. MECC is the acronym for excellence in electrical, mechanical, plumbing, security and protection services for the industrial, commercial, hospitality, transportation sectors. We pride ourselves in being able to design and build to client needs, and any structure that can be dreamed, can be built.

MECC utilises a variety of funding models to provide natural and durable homes and structures, backed by skilled execution, and sound empirical research. The design, building and maintenance of residential properties from high-end apartments in mixed-use developments and luxury houses for the private sector, to affordable and mixed tenure schemes is the primary expertise of MECC engineers, architects and masons.

MECC is a global social enterprise venture that is aimed at opening the built environment for shared creation and ownership. Ongoing projects include the construction of the Nile Valley Multiversity House, Small Scale Irrigation Schemes, Lakeside Bamboo Gazebos, Damwura School System, Telania Vegetable Gardens, Tano and Konkori Poultry Infrastructure and the renovation of the multimillion cedi Lakeside Haven.

To circumvent the teething corruption in the building and construction industry, MECC has successfully navigated the terrain and is now a world leader in utilising a variety of funding models to provide natural and durable homes and structures, backed by skilled execution, and sound empirical research. The company designs, builds and maintains residential properties from high-end apartments in mixed-use developments and luxury houses for the private sector, to affordable and mixed tenure schemes. The research and execution team offers solutions in indigenous and modern construction, mechanised agricultural technologies for small and medium scale irrigation schemes, warehouse design, construction and management; energy infrastructure construction, maintenance and operations; project management and procurement; real estate construction and finance; civil construction; commissioning and decommissioning; consultancy and advisory services.

## Mission and ideals

The main mission of MECC is to provide sustainable and affordable solutions to the construction and engineering value chains. MECC is here to set new standards in the construction industry and lead the way for balance ecosystems in the natural environment. In

accomplishing these goals the company envisions linear and nonlinear algorithms to every engineering problem that can be conceived. You dream it, we construct it.

## **MECC Irrigation**

MECC irrigation is the leading provider of water related solutions for all year round farming. The company fills the gaps in rain fed agriculture with tried and trusted interventions using small scale dams along the numerous streams and rivers meandering the land, utilising the power of water to create fun. The dams are deliberately designed to provide water for farming, power to create small scale industries and for domestic consumption. MECC is passionate about recreation around water themes to improve tourism and fishing potential of water bodies. At MECC it is all about integrated communities and industries around water. The irrigation services offer new installations, servicing, repair and maintenance of existing irrigation systems; professional design, installation and maintenance of irrigation systems; effective water conservation, utilisation and management

### **MECC Sustainable Alternatives**

The use of sustainable building materials and construction processes to create energy-efficient buildings with minimal environmental impact is the main focus of MECC. For example, using rock is a good alternative to many existing building materials because it has good thermal mass and insulation. The temperature is naturally regulated thus requiring less air condition and other cooling systems. Straw is used for walls as opposed to dry walls. The straw is a natural material that provides excellent insulation and fire resistance and are more energy efficient. Bamboo has been used by ancient societies to build and construct and its virtues are coming back to modern people. Bamboo is strong and flexible and grows incredibly fast, making it a rather abundant material. Bamboo is a unique building material in that it is strong in both rigidity and density. The tensile strength remains the same throughout the age of the bamboo plant, however, the plant fiber strength increases as it gets older. This makes bamboo an excellent material for bridges and houses when cured and treated well.

## We Are Here To Help

Meta Engineering and Construction Corporation is a household name in the provision and management of integrated solutions across the construction value chain. The highly motivated and dedicated work force manage and deliver high quality services from project design and fabrication, finance and procurement, maintenance and repair. MECC employs innovative and common sense solutions that are environmentally sound, financially cost effective, economically defensible and to meet your highest aspirations of quality and value for money. Let us help you realise your dream in real time.

#### The Meta Team

At MECC, we understand the importance of enabling and empowering our people to grow their careers, and to derive fulfilment from what they do on a daily basis. We enable and support our staff to pursue advancements in their career pathways—acquiring new skills and improving on existing ones, expanding capabilities and enhancing professional expertise. Joining MECC is a statement of intent to explore and play while creating viable solutions to help uplift humanity. We provide you access to training and development opportunities that enhance your experience. We have performance-based incentives system to meet every individuals needs according to the effort expended.

As part of the Nile Valley System, MECC is founded on the tenets of Ptah, the patron of all arts and craft. At the University of Ptah (UPTAH), a department of the Nile Valley Multiversity where the construction company is housed, new courses and programmes for career advancement through on-the-job training, mentorship and coaching, professional and personal development are enacted to take initiates and neophytes to the next level of the building and construction industry. With a diverse, talented team working in an energetic and rewarding environment, UPTAH is the natural home for the creative genius and inventors, the witches and wizards of all the trades and crafts. The College of Masons and the College of Crafts, as well as the 12 Faculties dealing with aviation, mechatronics, biodynamic agriculture, aqua sciences and related industries makes UPTAH the new revolution in science and technology education on the planet, the place for high level super luminous crafts. Ptah caused the world to be, creating himself by the power of his mouth. With this knowledge, MECC dreams into being all the designs and concepts using the ancient African understanding of the primordial relationships among all the elements in creation. We take inspiration in giving to mankind the new science founded on balance and sacred neutrality by offering real time training and mentorship in all the vocational and technical subjects from masonry to sculpture to carpentry to plumbing to catering to weaving.