



INDETECHS SOFTWARE LTD.

COMPANY PROFILE

Last Updated: May 2023

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1. Introduction

Indetechns Software Ltd. is a private limited company incorporated in Bangladesh under the Companies Act (Act XVIII) 1994. The company obtained certificate of incorporation which is C-149736/2019 dated 29 January 2019. The registered office of Indetechns Software Ltd. is situated at 204 Syed Nazrul Islam Sarani, 89 (12/B New), Bijoy Nagar, Aziz Co-operative Complex (2nd Floor), Dhaka-1000 and corporate office at House No: 31(Apt B3), Road No: 20, Block: K, Banani, Dhaka.

2. Organization

Management:

- Mansur Ali Khan, the Chairman of Indetechns Software Ltd. who provides critical knowledge and insight. He has experience in business analysis, market research and project management.

- Nazeeb Bin Mansur Khan, the Managing Director of Indetechns Software Ltd. who has gained valuable experience in investment acquisitions for a start-up company and took multiple lead roles and entrepreneurial services.

Employee:

- The company has group of high-quality workforce with vast software and engineering experience.

3. “Indetechns Service” idea

Service Purpose

- A. High-quality, high-efficiency and low cost is the bases for our existence.
- B. Good service consciousness is the idea basic to do our work well.
- C. Customer satisfaction is the vital criterion to evaluate our job.
- D. Specification, quality, satisfaction are the themes of our service.

Service Idea :

Reliable, Standard, Consummate, Innovated.

4. Nature of Business

Indetechns Software Ltd. acts as a Private Limited Company to work in the following areas:

To carry on business of software programme engineering, application design, computer software system develop, industry and office technology

development, software research and development, and technology transfer of products and technology in above fields.

To carry on business of designing and developing as well maintaining applications, framework or other software components for business and consumers.

5. MISSION

A. Enriching life by enabling reliable and affordable software systems anytime, anywhere.

B. To be a competitive value provider in international business for Group companies and all our partners.

6. VISION

A. INDETECHS's goal is to devote ourselves to build the Modern Service industry brand "Indetechs Service".

B. Our company's vision is to try our best to be Leader Company in service, to be a influential listed company, to be a venerable social company in this industry.

C. The vision of becoming a customer-focused organization offering quality, convenience and accessibility has always been the core of our business model. After mapping our customer expectations, we plan to aggressively bring new technology, add innovative products and services and increase the coverage area to make a major leap into the future.

7. CORE VALUES

Indetechs Software Ltd. has always sought to be a value-driven organisation. These values continue to direct the Group's growth and businesses. The five core Indetechs Software Ltd. values underpinning the way we do business are:

Customer-centered

Enabling customers to easily conduct business with us. To establish fixed and continued cooperation between the both sides.

Excellent execution

Keep striving to win commitments. The sense of responsibility.

Teamwork

To promote the spirit of teamwork in the internal and external of the company, as well as customers, partners and communities.

Pursuit of innovation

Striving to become a technology leader. Provide superior products, services and solutions. Passion for our cause.

Honest and Integrity

Unwavering business ethics.

8. Customer Service Vision

To be a Trusted Business Partner.

9. Coverage of Task and Technology

- A. Python based software tool for implementing GTEM (Converting 40 sheets of excel based LCOE calculation for geothermal energy based on GTEM into reusable python based tool). **Technology used (Python, Django, ChartJS, Docker, SQLite3, DataTables, Simapro Life Cycle Assessment Tool, Simapro Python Wrapper)**
- B. Python based GUI development and integration of MongoDB database, LCA tool, LCOE tool to the knowledgebase for geothermal application (Coding for knowledgebase analysis, GUI development and integration of SimaPRO and GTEM based LOCE tool). **Technology used (Python, Django, DRF, Postgres, MongoDB, Docker, Nginx, Bootstrap4, JQuery, Select2, Highcharts, DataTables, Simapro Life Cycle Assessment Tool, Simapro Python Wrapper)**
- C. Developing a customizable machine learning platform infrastructure. **Technology used (Deep learning, Mask RCNN, Python, and data science package, OpenCV)**
- D. Development Of Building Renovation Project Platform (BRP), Development of customizable house extension along with cost calculation, directory of vetted tradesperson, knowledge base tool for planning rules and advice centre for homeowners also tradesperson. **Technology used (.Net core 3.1, IIS – Deployment in Linux server AWS/Azure, Web API, ORM - Entity framework IDE(Server): Visual Studio 2019, Code Database: SQL Server 2019 Express, Design pattern – Repository pattern Architecture – Microservice architecture. Client Side: HTML, CSS, Angular9, Bootstrap 4 UI framework, Angular material)**

- E. Software tool for cost modelling and environmental impact assessment, supporting tool to be used in conjunction with Simapro LCA software. This tool will provide key information regarding cost and environmental impact of different options of arc welding technology. **Technology used (Ruby, ROR, Docker, Redis, MongoDB, Parse Server, Simapro Life Cycle Assessment Tool, Simapro Python Wrapper)**
- F. Software tool for waste heat recovery (WHR) application. This tool will provide different options of WHR applications and associated cost and environmental impact. **Technology used (Python, Django, Django Rest Framework, Pandas, ChartJS, Docker, SQLite3, DataTables, SweetAlert2, Simapro Life Cycle Assessment Tool, Simapro Python Wrapper).**
- G. Software tool for environmental impact assessment, supporting tool to be used in conjunction with Simapro LCA software for geothermal based energy. **Technology used (Python, pywin32)**
- H. Software tool to estimate levelized cost of energy for geothermal based energy. **Technology used (Python, Django, Django Rest Framework, Docker, SQLite3, Nginx)**
- I. Software tool for performance modelling of geothermal based energy. **Technology used (Python, pywin32, Flask, Flask-RESTful, Swagger, Simapro Python Wrapper)**

10. Projects Statement

A. SMARTREC: Technologies for geothermal to enhance competitiveness in smart and flexible operation” [<https://www.geosmartproject.eu/>] (H2020-Renewable Energy, no. 818576): Indetechs is developing a cloud-based platform for flexible operation of geothermal plant. The data warehouse is being populated with user, process, material, experimental and simulation data. Results from system simulator, LCA, LCC, and FEM are included. A Decision Support System (DSS) is added to the KBS to further guide optimal plant design.

Language used: Python, Django, Javascript

B. WELDGALAXY: Digital Dynamic Knowledge Platform for Welding in Manufacturing Industries” [<http://www.weldgalaxy.eu/>] (H2020-NMBP, no. 822106; 2018-2022): Indetechs is working to build a B2B online

Platform that brings together global buyers and EU manufacturers, suppliers, distributors, service providers of welding equipment along with auxiliaries/consumables and services, thereby enhancing the visibility of EU's welding products/prototypes/services to global users.

Language used : Python, Django, Ruby, Rails, Javascript

C. GEO-COAT: Development of novel and cost-effective corrosion resistant coatings for high temperature geothermal applications (H2020-Energy, no. 764086; 2018-2021). Indetechs is developing a KBE platform for developing different coating materials and coating processing technologies for geothermal application. The KBS database is being populated with user, process, material, experimental & simulation data. Results from system simulator, LCA, LCCA, and FEM (of HAZ during welding) are included. A Decision Support System (DSS) is added to the KBS to further guide optimal coating design and material selection.

Language used : Python, Django, Flask, Javascript, Ruby, Rails

D. GEOHEX: Advanced material for cost-efficient and enhanced heat exchange performance for geothermal application (H2020-Energy, no. 851917; 2019-2022). Indetechs will develop Geohex KBE, DSS and perform sustainability analysis. We will also investigate GeoHex opportunity and impact analysis.

Language used : Python, Django, Flask, NuxtJS, Ruby, Rails

E. GEOSMART: Technologies for geothermal to enhance competitiveness in smart and flexible operation (H2020-Renewable Energy, no. 818576). Indetechs is developing a cloud-based platform for flexible operation of geothermal plant. The data warehouse is being populated with user, process, material, experimental and simulation data. Results from system simulator, LCA, LCC, and FEM are included. A Decision Support System (DSS) is added to the KBS to further guide optimal plant design.

Language used : Python, Django, Flask, NuxtJS, Ruby, Rails

F. GEOPRO: Accurate Geofluid Properties as key to Geothermal Process Optimisation (H2020-Energy, no. 851816; 2019-2022). Indetechs will bring considerable experience from other Geothermal projects, will develop GEOPRO knowledge-based database and decision support system and environmental impact analysis.

Language used : Python, Django, Flask, NuxtJS, Ruby, Rails

G. GEODRILL: Development of novel and cost-effective drilling technology for Geothermal Systems (H2020-Enenergy, no. 815319; 2019-2022). Indetechs is developing a KBE (Knowledge Based Engineering) platform for mud hammer-based drilling system for deep geothermal drilling. Also, Indetechs is also performing substantiality analysis based on LCA and LCCA for the holistic drilling system.

Language used : Ruby, Rails

H. Forge: Indetechs has already developed LCIA and Cost Analysis tools for Forge Materials. Indetechs is developing a Knowledge-Base Decision Support System for selecting material composition and manufacturing process to achieve desired material performance. The DSS will provide a multi-criteria decision analysis (MCDA) tool that will allow users to screen and rank material composition suggestions.

Language used : Python, Flask, Ruby, Rials

I. ALBATROSS: Knowledge-Based Engineering (KBE) System for Battery Design. A cloud-based KBE tool for battery digital testing and eco-design.

Language used : Python, Flask, Matlab, Java, VueJS

J. Learning platform: It's a web-based learning system with an integrated set of interactive online services which includes Collaboration of various Learning Tools, Collaboration areas for the Educators, All courses are developed and managed through the custom admin dashboard, Online course catalogues, Flexibility for open/invitation-only access to the course, Localised forums available for the enrolled learners, Course management and tracking of the progress, Real classroom simulation through Live Classes, The active support team for the enrolled learners, 24/7 access to the course content, Q&A sessions offer the traditional classroom characteristics, Assessments to help the learner find their shortcoming in learning.

Language used: Python, Django, NuxtJS,

K. ComBioTES: Legal name "Compact bio-based thermal energy storage for buildings"

ComBioTES proposes to develop a modular compact thermal energy storage (TES) solution for heating, hot tap water and cooling with regard to thermal

enduses in buildings. This thermal energy storage solution will be fully adapted for electricity load shifting.

Language used: Python, Ruby, Rails

L. VOJEXT: The project aims to provide a favourable business and technological framework for cognitive autonomous systems supporting human-robot interaction, dynamising science-driven industry approaches for the European industry. This will enable new ways of automation and flexible reconfiguration for more effective and efficient manufacturing/construction processes.

Language used: Ruby, Rails

M. IMPHORAA: Implementation of photovoltaics through an innovative mini-grid expansion model for rural African & Asian communities (IMPHORAA).

Different components will be prepared or modified accordingly to suit the requirements. Based on preliminary estimation, the project will have two installations, one in Madagascar and one in Philippines. The installation in Madagascar will be upgraded with the additional components (DC-cooler, water pump for filtration and interconnection between the existing nanogrids). For the installation in Philippines, more effort will be required as it would be performed for the first time and there would be many aspects to be accommodated.

Language used : Python

N. PHARMALEDGER: Blockchain enabled Healthcare (H2020-IMI, no. 853922). Indetechs is leading Distributed Data Integration, Processing, and Sharing. Besides Indetechs is playing a major role in IoT and personalised medicine integration, supply chain integrity and drug provenance application layer, PharmaLedger platform reference implementation, and data warehouse/data mart implementation in the Foundation layer.

O. CoCaCO2la: The electrochemical reduction of CO₂ (CO₂R), driven by renewable energy, is a promising strategy to reduce CO₂ accumulation; by converting CO₂ into chemical products of high value with 2 or more carbon atoms), the economic case for Carbon Capture and Use (CCU) can be satisfied, and a closed-loop carbon economy can begin to emerge.

P. JIDEP: Joint Industrial Data Exchange Platform is a digital space where industrial data is available for sharing and connecting manufacturers from different sectors into a collaborative, mutually beneficial knowledge and data-sharing relationship.

Q. C2IMPRESS: Co-creative Improved Understanding and Awareness of Multi-Hazard Risks for Disaster Resilient Society (C2IMPRESS) aims to provide a novel ‘place and people’ centred integrated multi-hazard risk and resilient assessment framework. It will build a multi-hazard risk intelligence platform, an innovative agent-based model using the people-centred approach, an interdisciplinary and integrated risk assessment framework, and a decision support platform with microservices.

Language used : Python, Odoo

R. CRM: Collaborative CRM tool design and development to support end to end service for ISP users.

Language used : Python, Django, Javascript

S. CLIMAS: “Climate change citizens engagement toolbox for dealing with Societal resilience”.

Co-design and co-create Innovative problem-oriented climate adaptation Toolbox through solid methods (e.g. both design thinking and citizen science approaches) and a values-based approach (e.g. cost-effective way, inclusive trade-offs, etc.). The co-design process will be facilitated through the dialogue between civil society, academics, experts, social partners, policy-makers, entrepreneurs and other relevant actors to create more balanced, widely-supported resolutions to address resilience dilemmas. All that will consolidate the regional approach to climate resilience.

T. COMPASS: Geothermal energy is an excellent renewable energy source, being weather-independent, widely available and, unlike wind and solar energy, can provide a stable supply. This has the potential to make a significant contribution to the renewable energy in the EU and worldwide.

U. HR Management and Payroll System: A cloud based HR management platform to synchronize employee functions, monitor productivity, generate reports including payroll functions.

V. TRUMPET: Trustworthy Multi-site Privacy Enhancing Technologies (TRUMPET) (Horizon Europe, no. 101070038 and UKRI grant no. 10045746). Indetechs is leading the federated machine learning platform design, development and implementation for privacy enhanced clinical data.

11. Key & Associate Clients

A. Technovative Solutions LTD.

Unit 4 Rutherford House, Pencroft Way,
Manchester Science Park,
Manchester, M15 6SE, United Kingdom.

B. Comjagat Technologies

Boshoti Legacy, House #29, Road# 6, Dhanmondi, Dhaka 1205.
E-mail: info@comjagat.net

C. Kloud Technologies Limited

Level 4, Plot 3, Mohakhali, Dhaka 1212
E-mail: info@kloud.com.bd

D. Base Limited

Level 4, 147/d Green Rd, Dhaka 1215
E-mail: info@baseltd.com

12. Indetechs Software Ltd. Contact Details:

Corporate Address: House No: 31(Apt B3), Road No: 20, Block: K, Banani, Dhaka.