



NEEDS
Near East Engineering & Development Services

COMMUNICATION ON PROGRESS FOR THE GLOBAL COMPACT NETWORK

Reporting Period:
February 2018-February 2019

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1. ABOUT NEEDS

Established in 1997, NEEDS is committed to the pursuit of excellence in serving the regional market needs in the fields of energy systems, electrical and water networks, infrastructure development, smart grid, automation and control systems, information technology, smart metering, environment, policy development, education and project quality management.

- GEOGRAPHIC INFORMATION SYSTEM
- DISTRIBUTION MANAGEMENT SYSTEM
- ADVANCED METERING INFRASTRUCTURE
- ENERGY EFFICIENCY PROGRAMS
- INVESTMENT PROGRAMS
- POLICY / RESTRUCTURING PROGRAMS
- LEADERSHIP IN SPECIALIZED PROGRAMS

20 YEARS OF SERVICES:
CONSULTING
ENGINEERING
DIGITAL SERVICES
MANAGEMENT





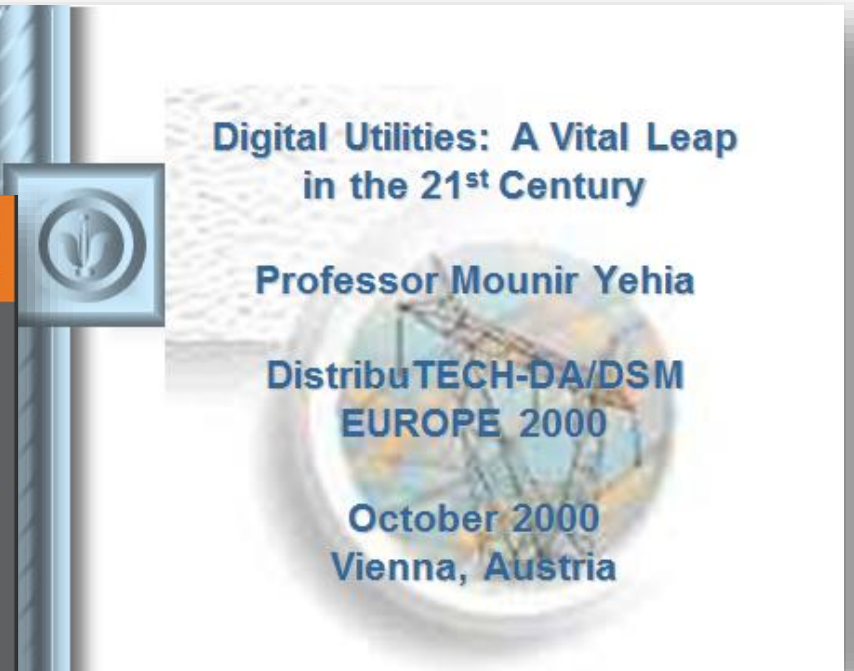
NEEDS MISSION

NEEDS endeavours to be a pioneer consulting and engineering company specialized in the integration of advanced automation and information technologies with planning, design, operations, finance, management, customer services, and other business activities of governmental and private utilities in the region.



NEEDS STATEMENT

Commitment to Lead the Digital Transformation of Utility Business in the 21st Century towards Overall Business Sustainable Environment with Ultimate Professional Integrity.



2. JOINING UN GLOBAL COMPACT NETWORK LEBANON (UN-GCNL)

- On February 2018, NEEDS has joined the UN Global Compact Network in Lebanon (GCNL) on a Participant Level. In its engagement, NEEDS confirmed supporting the Ten Principles of the United Nations Global Compact on Human Rights, Labour, Environment, and Anti-Corruption.



- NEEDS committed to make the UN Global Compact and its principles part of its strategy, culture, and day-to-day operations, and to engaging in collaborative projects which advance the broader development goals of the United Nations, particularly the SDGs.

This Report is NEEDS first COP report. We will present hereby the actions we considered during this year to continually improve the integration of the Global Compact and its principles into our business strategy, culture and daily operations.

- During its first year, NEEDS has undertaken several projects, initiatives and progress towards specific SDGs in our commitment as members of GCNL towards the 2030 agenda.





NEEDS CEO STATEMENT



To Our Stakeholders:

I am pleased to confirm that Near East Engineering and Development Services – NEEDS, reaffirms its support of the Ten Principles of the United Nations Global Compact in the areas of Human Rights, Labour, Environment and Anti-Corruption.

In this annual Communication on Progress, we describe our actions to continually improve the integration of the Global Compact and its principles into our business strategy, culture and daily operations.

In the hard conditions through which the overall Middle East region is passing, we are striving to implement all our capabilities and knowledge towards achieving selected sustainable goals that have positive impact on the environment and on the advancement of human being through education. We are looking forward to witnessing that our efforts will contribute to a better future, supporting our community and encouraging other institutions toward joining the efforts.

We also commit to sharing this information with our stakeholders using our primary channels of communication.

Sincerely yours,

Dr. Mounir Yehia
NEEDS Chairman and CEO

3. Description of Actions

“Human Rights”



HUMAN RIGHTS

1. **Businesses should support and respect the protection of internationally proclaimed human rights; and**
2. **make sure that they are not complicit in human rights abuses.**

Suitable, Safe Work Facilities

In 2016, NEEDS had executed full refurbishment of its premises, renewing all its offices ensuring to provide NEEDS employees a more suitable work place, healthy and safe working environment, including needed facilities.

NEEDS prohibits ‘Smoking’ in all its indoor premises to ensure clean air and protect the health of all employees.

Equal Opportunity

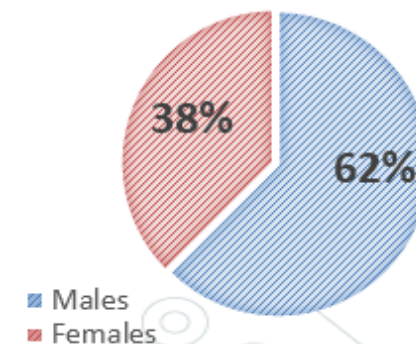
NEEDS provides an equal opportunity for all employees, without differentiation on gender, religion, national origin or color.

NEEDS exerts all effort to ensure fair treatment for all employees, without any discrimination or differentiation of any kind.

NEEDS has 62% of employees Male and 38% female, where 50% of employees are engineers.

Ethical Work Environment

NEEDS endeavors to ensure an ethical work environment, where respect among all employees and productive work environment are keen.



COMMITMENT TO THE GLOBAL GOALS

“Labour”

LABOUR

3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
4. the elimination of all forms of forced and compulsory labour;
5. the effective abolition of child labour; and
6. the elimination of discrimination in respect of employment and occupation.

COMMITMENT TO THE GLOBAL GOALS

Equal Employment Opportunity

NEEDS provides an equal employment opportunity during the recruitment process, without any differentiation on religion, gender, age or color.

NEEDS is committed to treat fairly all its employees regarding the recruitment, development, promotion, salary and benefits.

Benefits to Employees

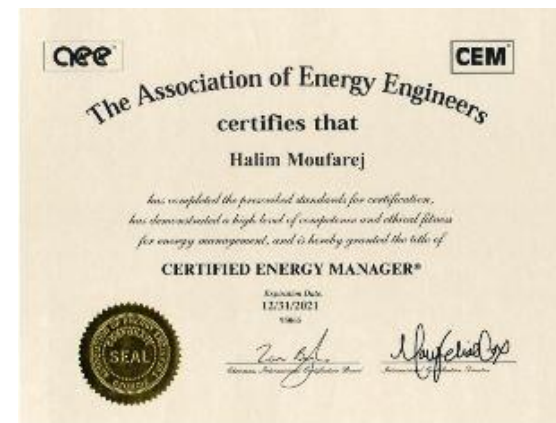
Among benefits that NEEDS provides to employees, is the bi-annual or annual bonus, as a reward for the hard work, and to encourage commitment and dedication.

Employees benefit as well from health insurance and benefits, as per the Lebanese Labor Law.

Continuous Training

NEEDS strives to provide the employees with continuous development and training. Training and courses fields vary from energy, to education and management.

This training process enhances the staff skills, and keeps them motivated, developing their ability to grow.



Certificate in Energy Management



Certificate in Lead Auditing



Certificate of Attendance

“Environment”

NEEDS SMART ENERGY SOLUTIONS AND ENERGY EFFICIENCY

NEEDS “Smart Energy Solutions” and “Energy Efficiency” are in the core of NEEDS Sustainable activities, aiming at achieving primary energy savings, protecting the environment, reducing consumer cost, and attaining a high level of sustainability and reliability of the power system through load management and energy efficiency.

Through NEEDS Exclusive **SMARTi** Solution, we perform the engineering and feasibility related to energy efficiency and energy management programs, where the cost of energy is increasing significantly, thus driving end users to cut down on energy consumption resulting in significant cost savings, while ensuring operational continuity and a continuous return on investments, necessary for sustainable development and clean environment.

ENVIRONMENT

7.
Businesses should support a precautionary approach to environmental challenges;

8.
undertake initiatives to promote greater environmental responsibility; and

9.
encourage the development and diffusion of environmentally friendly technologies.



IN ADDITION, NEEDS SMART ENERGY SOLUTIONS AND ENERGY EFFICIENCY SUPPORT ACHIEVING THE FOLLOWING SDGs

- Goal 7.** Ensure access to affordable, reliable, sustainable and modern energy for all
- Goal 12.** Ensure sustainable consumption and production patterns
- Goal 13.** Take urgent action to combat climate change and its impacts
- Goal 17.** Strengthen the means of implementation and revitalize the global partnership for sustainable development

NEEDS Actions on SDG’s are detailed in Section 4.

COMMITMENT TO THE GLOBAL GOALS

“Anti-Corruption”

NEEDS DIGITAL TRANSFORMATION OF THE BUSINESS ENVIRONMENT

NEEDS major challenge is to position the "Digital Utility" as a basic requirement for the success and modernization of the regional utilities' business and services. The Digitization process minimizes corruption in all its forms, including extortion and bribery.

In fact, the process-oriented approach in a modern utility structure requires the integration of technical activities, functions, information, technology, economical analysis, managerial issues, and business rules. The digital utility platform shall serve the complex business processes associated with new business environment and market forces from the day-to-day business activities to the highest decision making process. The Digital Utility transformation aims at reducing capital investment, increasing operational efficiency, maintaining high quality of services, and adopting the business driven approach, minimizing corruption in all its forms.

The realization of the Digital Utility is the key success factor to face the sustainability challenge in an investment-intensive environment such as the utility business.



ANTI-CORRUPTION

10.

Businesses should work against corruption in all its forms, including extortion and bribery.

ETHICAL WORK ENVIRONMENT

NEEDS rejects all forms of discrimination or destructive conducts like harassment or intimidation.

NEEDS encourages all employees to communicate any abuse they may sense during their work.

4 QUALITY EDUCATION



COMMITMENT TO THE GLOBAL GOALS

IN ADDITION, NEEDS DIGITAL TRANSFORMATION OF THE BUSINESS ENVIRONMENT SUPPORTS ACHIEVING THE FOLLOWING SDGs:

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

NEEDS Actions on SDG's are detailed in Section 4.

4. NEEDS AND SDG'S

4.1 NEEDS SMART ENERGY SOLUTIONS



Development of an energy solution called SMARTi Solution, which provides smart effective means to reduce energy consumption, resulting in significant cost savings and ensuring operational continuity with stable return on investment.

This solution has different components, through which the energy consumption of a Building will be audited and analyzed, and accordingly recommendations will be provided covering the basic preliminary to the most advanced EE and RE.



Implementation of Energy Audit for CT/VT Meters at Metering Site in Muscat Electricity Distribution Company resulting in actionable recommendations to client for immediate implementation and reduction of network losses.

NEEDS implementation of an innovative technical approach that facilitates the systematic inspection, collection, and analysis of millions of meter data records with highest accuracy levels that result in actionable recommendations to the client for immediate implementation and reduction of network losses.



Execution of detailed Facility Study under ESCO model (Energy Service Company) of a 20,000 m2 public building in Saudi Arabia

The project results in potential energy efficiency measures and recommendations along with feasibility and payback period.

4.1 NEEDS SMART ENERGY SOLUTIONS



Execution of phase I of Performance Contracting Services for 8 Public Office Buildings in Abu Dhabi for the Department of Energy

The measures cover the lighting, HVAC, BMS, Energy Monitoring, others. The objectives of the project were met where the Audit report shows a conservation of 30% in the buildings energy use is achievable within one year of implementation of the recommended ECMs and investment return (payback period) over seven (7) years using a Shared Saving ESCO model.



Development of policies programs with action plans and recommendation

by balancing the rational consumption of energy (Energy Efficiency projects proposed for private sector) with moderate increase of production (Policy recommendations and programs for the public sector).



Promotion of Digital transformation and Smart Grid Implementation

through participation in major bids of three regional countries associated with the digital transformation of the energy and water business environment to provide transparent processing of data and benchmarking goals so decision makers are able to take proper decisions associated with sustainable development.



Update of “Policy Paper for the Electricity Sector of Lebanon”

The “Policy Paper for the Electricity Sector” constitutes a global framework for the energy sector in Lebanon, including 3 distinct strategic areas with 10 specific initiatives. NEEDS provided services to assess the progress and to update the initiatives of the Policy Paper of 2010, for the Ministry of Electricity and Water. In this Policy Paper, Renewable Energy and Energy Efficiency initiatives are among the initiatives.

NEEDS SMARTi SERVICES

Energy Audits

Our Energy Audit Services include:

- Conduct a comprehensive survey of the facility
- Identify opportunities for energy savings.
- Measure energy consumption of all lighting, equipment, and other installations.
- Analyze measurements and survey results to identify areas of improvements & savings.
- Deliver a full set of recommendations for improvement.

Construction Management Services

Our Construction Management Services include:

- Complete a bidding process to select qualified Contractors for executing the designed energy improvement measures.
- Manage project detailed design and installation stage, including project schedule and construction budget.

Energy Savings Design Schemes

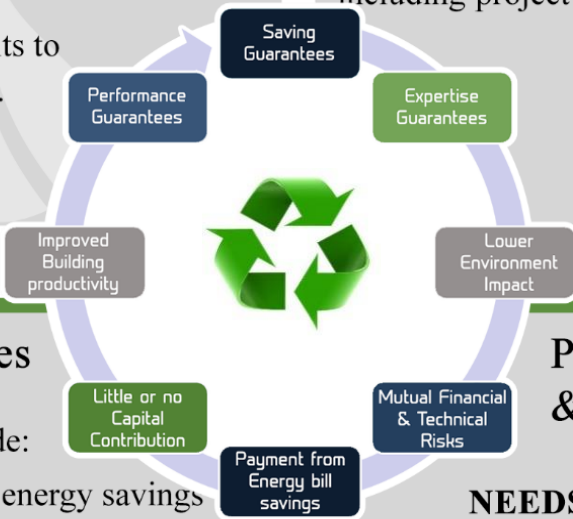
Based on energy audit, our services include:

- Design proficient schemes to maximize energy savings opportunities
- Provide customized solutions, engineered and delivered as energy-efficiency projects
- Prioritize solutions to achieve highest savings in the shortest amount of time

Performance Contracting & Project Financing

NEEDS performance contracting services help its clients reach their savings goals by guaranteeing the level of savings that will be achieved as a result of implementing the designed savings measures.

NEEDS offers its clients assistance in securing necessary financing, to facilitate the implementation of recommended energy projects.



NEEDS SMARTi OFFERINGS

NEEDS offers several energy savings and efficiency services through defined solutions (Business Models)

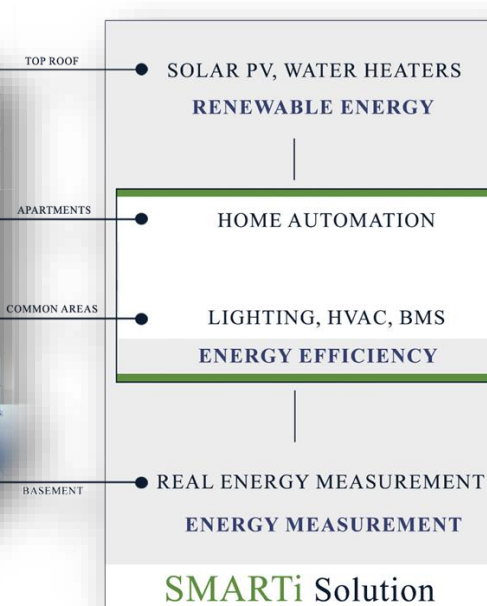
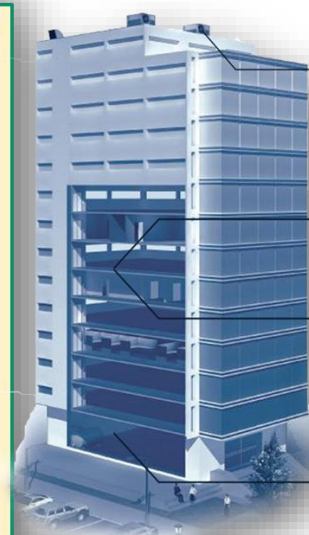


SERVICES	SMART SOLUTIONS			
	Energy Audit	Energy Design	Audit & Design	Management Performance
Engineering Services				
SMARTi Solution	✓	✓	✓	✓
Technical Energy Audit	✓		✓	✓
Design and Engineering		✓	✓	✓
Energy Project Construction Management				✓
Energy Measurements and Verification				✓
Financial Services				
Assistance in Project Financing				✓
Client Benefits				
Energy Recommendations	✓	✓	✓	✓
SMARTi Solution	✓	✓	✓	✓
Client Comfort				✓
Guaranteed Energy Savings				✓

MEASUREMENT AND OUTCOMES NEEDS EXCLUSIVE SMARTi SOLUTION



- Main Outcome**
- ✓ *Reduce your energy costs – up to 40%*
 - ✓ *Improve the operating performance*
 - ✓ *Cut your building's carbon emissions*
 - ✓ *Ensure the comfort of your building's occupants*
 - ✓ *Increase your asset value*



◎ Reduce Customer Energy Bill **from 10% to 40%** with guaranteed savings over the long-term

4. NEEDS AND SDG'S

4.2 NEEDS DIGITAL SOLUTIONS

4 QUALITY EDUCATION



Development of the E-Learning Solution - SOrCE electronic platform – implementing the digital transformation in the learning and education sector for deployment in schools.

NEEDS offers E-Learning solution, through the exclusive SOrCE electronic platform (Smart Oriented and Constructive E-Learning), for the digital transformation of learning practices into more robust, customizable and smart learning experiences using advanced technologies, with digital curriculum and interactive content.

4 QUALITY EDUCATION



Development of an E-Learning Product - Learnit – as the First Digital Platform for Brevet and Baccalaureate National Examination in Lebanon, including the interactive digital content of grades 9 and 12- scientific subjects in English and French.

4 QUALITY EDUCATION



Copyright Registration of **Learnit** product in the Ministry of Economy and Trade.
(Certification # 185707)

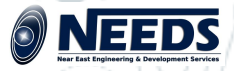
4 QUALITY EDUCATION



Provision of scientific and technical expertise to the Lebanese Army, as an initiative to develop the Army E-Learning Interactive Platform.



TRANSFORMATION TIMELINE



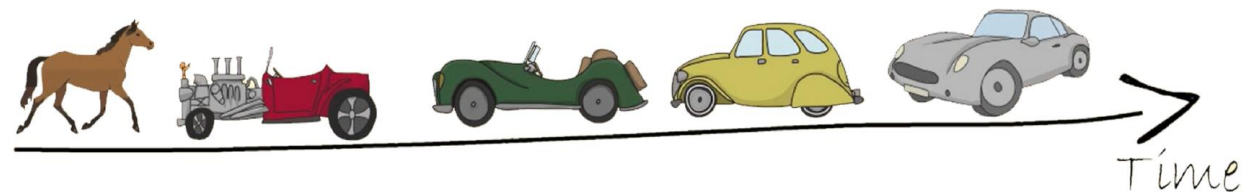
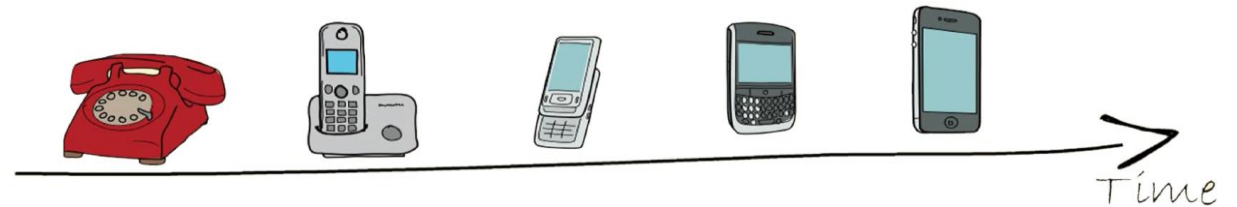
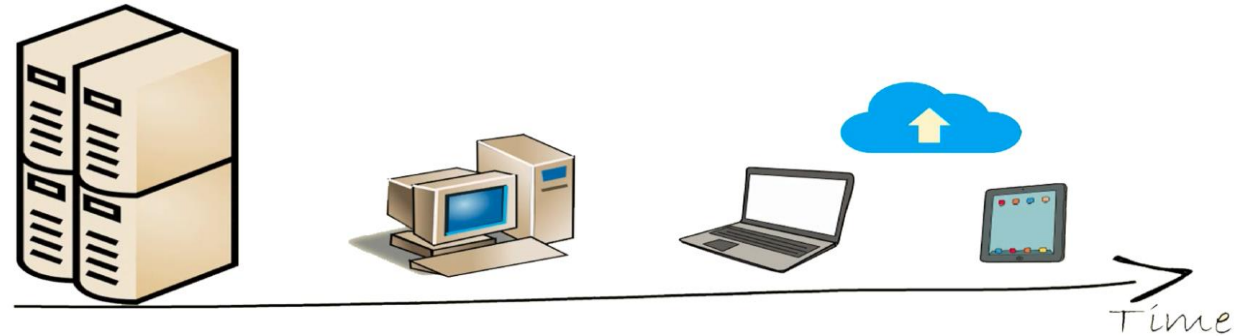
NEEDS Experience in Digital Transformation

+

Chairman *Dr. Mounir Yehia*, as a former Professor at the American University of Beirut



LEARNIT was evolved



NEEDS is concerned with the learning paradigm shift designed to cater for the **21st century skills** for today's learners

LEARNIT DRIVER

An Emerging Form of Learning towards Achieving the National Examination



1st Online Training Program for Brevet and Baccalaureate National Examination



- Combining **self-learning & instructional learning** into one form
- Turning Learner into **driver of the learning process, the decision maker, and the knowledge seeker**

- Engaging Learners in e-learning activities to facilitate in assimilating their courses **anytime, anywhere** using **any smart device**
- Allowing smooth sailing across lessons and utilizing **pop-up definitions, illustrations, interactive exercises, direct assessment**



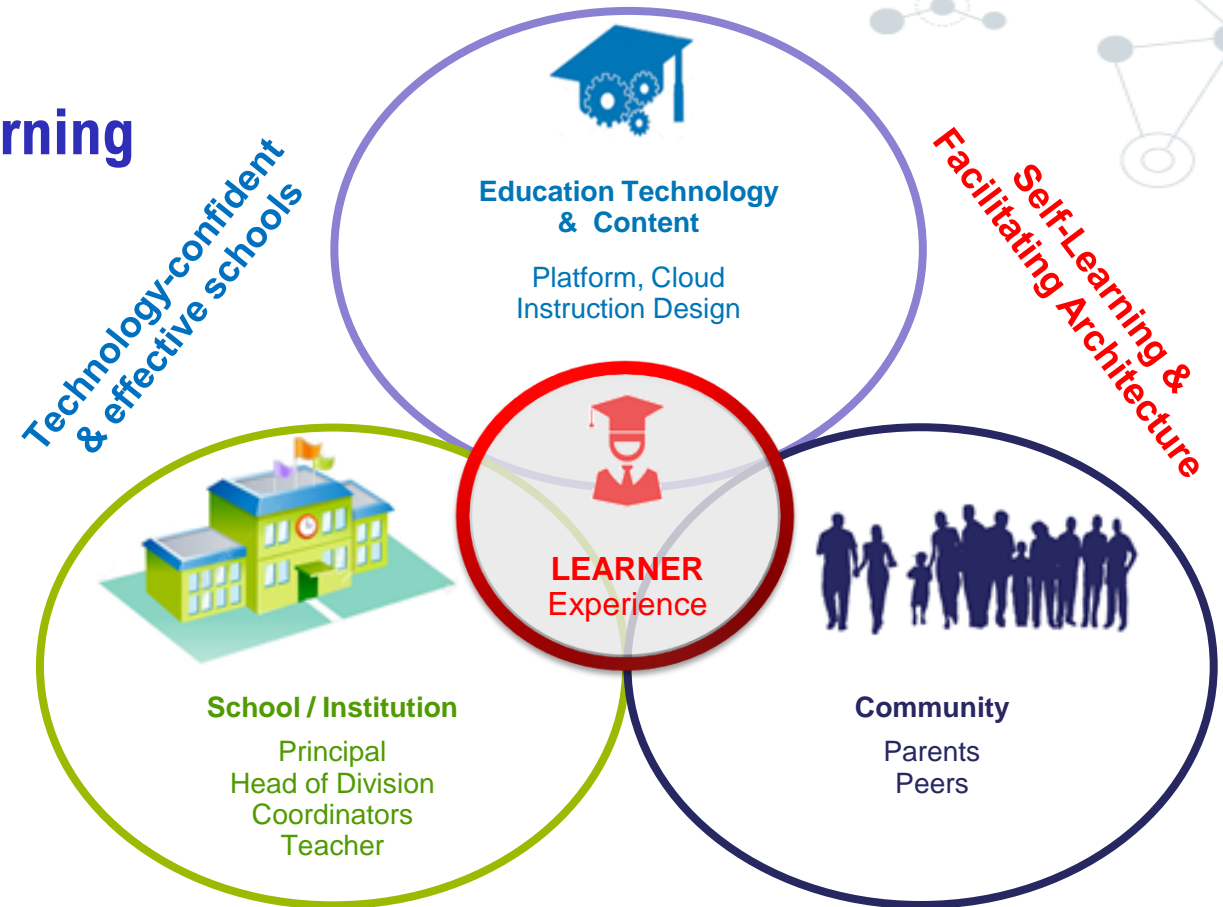
LEARNIT CONCEPT

An Emerging Form of Learning towards Achieving the National Examination



Self-Learning and Interactive Learning

- Furnished with necessary **Knowledge, Skills, and Strategies** required to excel in the national examination
- Geared with **Real-time Assessment** and **Direct Feedback** on student performance
- Armed with **Custom Analytics** and **Progress Tracking** tools based on learner's activities.
- Performed on Interactive **Multi-lingual Responsive** Learning System
- Accessible on **Computers, Interactive Boards, Tablets,** and **Smart Phones**



LEARNIT CORE

An Emerging Form of Learning towards Achieving the National Examination



Meeting Learning and Technology Requirements of 21st century

قابلية التوسع في اي وقت



التعلم في اي وقت,اي مكان



التكامل مع مختلف الانظمة



تكيف التعليم وفق احتياجات المتعلم



التعلم عن طريق بناء المعرفة



ملائمة مختلف انماط التعلم



Learning Effectiveness

توفير الأمن المعلوماتي





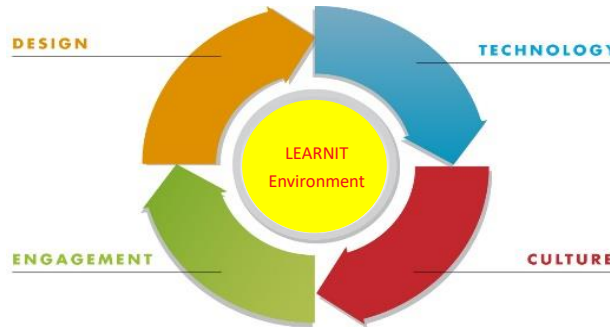
LEARNIT BENEFITS

An Emerging Form of Learning towards Achieving the National Examination

PAPERLESS



- increasing ability to learn in self-mode
- capitalizing on self-instruction
- setting goals and managing time for achievement



- transforming learner from a mere recipient into researcher & analyzer
- merging technology with learning models via unique pedagogical engineering

[HTTP://LEARNIT.SORCE.ONLINE](http://LEARNIT.SORCE.ONLINE)

Physics

Become a top achiever in **Physics** with the combination of lessons with interactive exercises and Four Trial exams

Purchase: \$30 [Preview](#)

Mathématique

Revoir les leçons, les exemples résolus et les exercices de chapitre avec 4 examens d'essai pour vous aidez en **Mathématique!**

Purchase: \$30 [Preview](#)

Multi-Lingual Platform & Courses

English & French

Refraction and Total Reflection

Transparent medium (1) (for example air) is less refractive than transparent medium (2) (for example water).

Incident Ray, Normal, Refracted Ray, Surface of Separation, Transparent Medium (1) (Exp: Air), Transparent Medium (2) (Exp: Water)

- I is the point of incidence
- The **incident ray** is the ray before refraction
- The **refracted ray** is the deflected ray
- The **angle of incidence** i is between the **incident ray** and the **normal**
- The **angle of refraction** r is between the **refracted ray** and the **normal**

Course Tab Chapter Tests Trial Exams

Dear learner,

To increase your success in learning please solve the lesson exercises. Once done, you may try your final challenge.

- Course
- Chapter Tests
- Trial Exams

Course Tab Chapter Tests Trial Exams

Unit Exams

- Electricity
- Mechanics
- Optics

Unit Solutions

- Solution For Electricity
- Solution For Mechanics
- Solution For Optics

Course Tab Chapter Tests Trial Exams

Exams

- Sample Exam 1
- Sample Exam 2
- Sample Exam 3
- Sample Exam 4

Solutions

- Solution For Exam 1
- Solution for Exam 2
- Solution For Exam 3
- Solution For Exam 4

Test Yourself:

We consider a current-voltage characteristic of a resistor of resistance R . ([Click here to see the figure](#))

Determine the value of the applied voltage if the value of the electric current is $I = 0.3$ A:

Hint

Use the given current-voltage characteristic

$U = 6$ V

$U = 9$ V
 $U = 12$ V

Your answer is incorrect!

Immediate Feedback

self-assessment

Visual Illustration



5. NEEDS EVENTS AND ACHIEVEMENTS

EDUTECH Event April 18-20, 2018 SGEC-L Beit Mery, Lebanon

NEEDS had participated in the EduTech event, on April 18-20, 2018, which was held in the "Secrétariat Général des Ecoles Catholiques au Liban", in Ain Najm, Beit Mery, Lebanon.



During the event opening, NEEDS Chairman, Dr. Mounir Yehia, announced the launching of the **First Digital Platform for Brevet and Baccalaureate national examination (Learnit)**, beside SOrCE complete digital transformation for school from Grade 7 – Grade 12.



NEEDS presented as well a session about SOrCE as the Digital Transformation in Learning and Education, highlighting the success story of NEEDS in real implementation of E-Learning Digital Transformation.

NEEDS Attended more than 22 events in 2018 related to Energy / Education

GCNL Events:

NEEDS had participated in various GCNL events, below selected ones are presented:

March 2018

Strategizing for the SDGs

Cost of Climate Change on Lebanese Economy

July 2018

Manara in Lights & Colours Beirut Light House Ceremony

October 2018

Multi Stakeholder SDG Forum 2018

December 2018

GCNL's SDG 13 Focus Group



Lebanese Army – Directorate of Intelligence Recognition to NEEDS



Further to NEEDS achievements in digital transformation in the utility sector, NEEDS also employs its expertise to implement the digital transformation in the learning and education sector and was recognized by the Lebanese Army - Directorate of Intelligence - for its initiative of providing the scientific and technical expertise, to develop the Lebanese Army E-Learning Interactive Platform.



A delegation of Lebanese Army - Directorate of Intelligence, headed by Brigadier General Wissam Safi accompanied by Colonel Jamil Lahhoud and their team handed the Recognition Letter to NEEDS Chairman, Dr. Mounir Yehia on August 28, 2018.

NEEDS initiative was launched with several meetings and workshops with the Lebanese Army - Directorate of Intelligence technical team, where NEEDS presented its major experience and achievements in the digital transformation and demonstrated its online eLearning SORCE Platform with highlights on its services and major features. Additionally, the Lebanese Army team highlighted their initial development on Moodle LMS system, and presented their requirements relevant to advanced developments and security issues.

NEEDS offered the desired expertise and required professional services to support the Lebanese Army with technical solutions comprises of Training and Knowledge Transfer, Technical Workshops, Advanced Developments, and Qualitative Customization and Configuration along with its Designated Code Snippets.

NEEDS ISO Qualification: ISO 9001:2015



NEEDS
Near East Engineering & Development Services

Quality Policy

NEEDS objective is to provide a cost-effective and high quality consulting services relevant to customer's short and long term needs, and ensuring all applicable requirements are met.

We at NEEDS are committed to teaming up with customers throughout the life of the project from conception to implementation and beyond.

Our dependability is guaranteed by maintaining the highest benchmark through continuous investment in Human Resources, Technology and Quality Management System.

Together with our customers we will pursue the long Journey of Excellence.

Signature

Name

Date



Dr. Mounir Yehia

March 1st, 2016

Ref: QM-MA-02-R0

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NEEDS is "ISO 9001:2015" qualified, with the following Scope of Certification:

"Provision and Management of Digital Transformation System for Engineering and Relevant Business"



NEEDS

Near East Engineering & Development Services

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