DeltaKnEW - Workforce Transformation Solution

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Business Categories

Power Electronics
- Components
- Embedded Power
- Fans & Thermal Management
- Automotive Electronics
- Merchant & Mobile Power

Automation
- Industrial Automation
- Building Automation

Infrastructure
- ICT Infrastructure
- Energy Infrastructure
Green Solutions

Industrial Automation  Building Automation  Datacenter

Telecom Energy  Renewable Energy  EV Charging  Display and Monitoring

Delta Confidential
Delta Research Center, DRC

Pioneer in CPS
- Pioneer in building and delivering Cyber-Physical Systems

Delta Transformation
- Offerings foster transformation and grow new business opportunity for Delta

Ecosystem Collaboration
- Collaborate with partners to cultivate a smart and connected ecosystem

Technology Innovation

Solution Integration

Field Acceptance Test

Cross Industry Collaboration
I. Workforce transformation trends and demands

II. DeltaKnEW Workforce Transformation Solution

- Academy
- Mastering
- Frontline
- Consulting

III. Content, Platform, AI

IV. Fostering an intelligent learning ecosystem
Workforce Transformation Trends and Demands

Quickening tech developments
- Accelerating tech evolution
- Rapid tech adoption
- Demand for quick learning

Widening skill gap
- Home communities vs. Industrial areas
- Novices vs. Experts
- School education vs. Employers' requirements

Rising demand for knowledge workers
- Technical skills essential to every line of work
- More complex skill requirements
- Diverse skill supply/demand needs

Changing labor market
- Manufacturing labor shortage
- Aging workforce
- Skill transfer needs

Workforce empowerment & business success
DeltaKnEW for Industrial Transformation

Achieving Industry 4.0 Workforce

- Digitalization
- Automation
- Robotics
- Artificial Intelligence
- Advanced Manufacturing
- ... and many more
Value Proposition of DeltaKnEW

Learning Right Content for Work Performance

Learning is more personalized, offering the right content at the right time.

To effectively and efficiently meet teaching goals, both quality and quantity matter.

Accumulate, distill & transfer knowledge

“Learning” and “Working” are inseparable and can take place at the same time.
Three Pillars of DeltaKnEW

Solution offerings built upon platform, content and data

- **Academy**
  Personalized learning platform

- **Mastering**
  Simulation-enabled training platform

- **Frontline**
  Real-time assistance tool for workers
Academy: Personalized Learning Platform

- Highlight key points with **personal markers**
- Use **section markers** to find content easily and quickly
- Tap into wisdom of the crowd through **interactive discussion**
- Use **simple search** to look for information
- Manage personal **learning process** easily and effectively
- Make learning demand-oriented with **course recommendations**
- Edit and test modules **on/off-line**

Freely switch between the web version and mobile app
End-to-End Learning Experience
Intuitive design for personal learning journey

Interactive Learning Platform
Collaboration by design to expand knowledge network

Professional Training with Domain Insight
Practical know-how sharing by industrial experts

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How to achieve adaptive and effective curriculum?

Testbed types
- 4 01:51-02:37
- Design and development principles 4 02:37-04:29
- Benefits for CPS security 4 04:29-05:40

Network security testbed
- 4 00:15-00:58

Reasons for establishing NST
- 4 00:58-01:51

Overview
- 1.1 00:15-02:00

Protocols
- 1.1 02:00-04:32

Software-defined networking (SDN)
- 1.2 02:00-02:06

OpenFlow Network
- 1.2 02:04-04:16

SDN for CPS security
- 1.2 04:36-05:28

Summary
- 1.2 05:28-05:50

CPS security

Interaction levels
- 3.1 02:42-03:13

Comparison with sandbox
- 3.1 03:37-04:54

Deployment challenges
- 3.1 04:54-05:53

Development of honeypot systems
- 3.2 00:40-01:24

Honeypot technology and its design
- 1.1 00:41-02:42

Intrusion detection and about its system
- 2.1 00:00-01:40

Firewall
- 2.1 01:40-02:16

IDS concept
- 2.1 02:16-03:53

Deployment challenges
- 2.2 04:32-05:01

Host-based IDS
- 2.2 00:42-02:14

Network-based IDS
- 2.2 02:14-04:13

Limitations lead to
- 3.1 00:21-00:41

Combination
- 2.1 03:53-05:18

Network dimensions
- 4 00:00-00:58

Summary
- 2.2 06:01-06:31
A. Discovering & Exploring
   Course search, preview, and grouping

B. Learning & Interacting
   - Forum designed for exchange
   - Video and forum pairing by tag design

C. Analysis & Reporting
   - Personalized course list, training record management, and recommendation

D. Administration & Integration
   - Customizable user interface with security design
   - Integration with social platform
Participation & Completion visualizes participants’ completion status over a phase and how active in their learning

- Learning Behaviour to Improve Productivity through Notification
Participation & Completion

Status:
- complete
- partial
- progress
- idle

Type:
- Generic Reminder
- Personalized Reminder

Phase:
- 2019-09
- 2019-10
- 2019-11
- 2019-12
- 2020-01

Participants:

Date (2019):
- Jul 29
- Aug 5
- Aug 12
- Aug 19
- Aug 26
- Sep 2
- Sep 9
- Sep 16

Total Responses:
- 15

Participation Details:

- Delta Confidential
- Participation
- Completion

Legend:
- Green: complete
- Blue: partial
- Purple: progress
- Orange: idle
Adult learning challenge: how to increase completion rate in a stipulated time?

Question: what are the different characteristics for these three groups?
How does nudge help learning?

Learning Progression

Participant Activities
How does nudge help learning?

Notification:  
- Generic
- Personalized
Activity Pattern visualizes how active are the participants for different days of the week, and hours of the day.
Mastering: Simulation-enabled Training Platform

- Lower training threshold via virtual-physical simulation
- Use and mix SW/HW modules for interactive learning based on demand
- Support multi-party, multi-location connections to save costs
- Leverage multi-function sensors to record learning progress
- Make learning fun through gamification

Create a VR-enabled simulated space for users to practice operating equipment
Frontline: Real-time Assistance Tool for Field Workers

- Discuss and **collaborate with experts remotely**, aided by **visual displays**
- Record problem-solving and maintenance process to **retain knowledge systematically**
- **Quickly solve** issues with **anomaly** notifications and suggested solutions
- Capture knowledge and experience to enable efficient **skill transfer**

*Remotely engage with experts via a visual, interactive interface*

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To learn more about Delta, please visit www.deltaww.com or scan the QR code