DIGITALIZATION IN LABORATORY MANAGEMENT

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In this presentation, some sample modules and their benefits in the Kal-Met Private Data Management System, which we have been using since 2013 in our accredited laboratories according to the TS EN ISO 17025 standard is explained.

New modules are added to the system according to the needs and expectations. The personnel are allowed to use the modules they are authorized and the workload of the laboratory manager is alleviated.

- Registering the devices that are arrived to the laboratory for the calibration to the system with all their details,

- Extracting the certificate number automatically,

- Adding the appearance and control notes to the system with their pictures if necessary,

- Keeping the information to whom and how the devices were delivered after the calibration of the devices,

- Sending annual calibration reminder email to the customers automatically

are advantages for the tracking process of the devices coming to the laboratory.

OFFERING MODULE

- Pricing the devices separately according to the measurement ranges and methods,

- Preparing detailed offers on the system,

- Sending them to the customer by email,

- Reminding the customer of unapproved offers,

- Making acceptance and assignments over the offer,

- Billing according to the offer,

- Specifying the extra devices that are not included in the current offer and submitting the offer revision are handled with offering module.

PLANNING MODULE

-   Assigning Field Calibration to the responsible personnel

    is prepared in the planning module which provides a convenience to the personnel.

CERTIFICATION MODULE

- Starting the calibration process according to the number assigned in the device acceptance module,
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- Giving ability to write certificates with e-signature to the personnel and send them for approval and personnel who has authority for approving the certificates with as e-signature,
- Sending the certificates for reviewing during approval process if there is an error,
- Creating the new certificate with the revision number if the customer requests a change in the certificate,
- Uploading the certificate templates to the system, making changes, and managing the coefficients changes and measurement uncertainties of reference devices from the system by authorized laboratory administrators
- Assigning the pending certificate requests to the personnel, as a result of that, with applying the FIFO(first-in, first-out) approach, providing the ease for monitoring the assigned work to the personnel when he/she logs into his/her user account

  are advantages of the certification module.

DEVICE TRACKING MODULE

- Managing the periodical calibrations, controls and maintenance of the calibration reference devices with online reminders,

- Monitoring the department based, out of used from the system calibration reference devices,

- Analyzing the qualification by entering the acceptance criteria to the system easily

  are some of the facilities that the device tracking module provides.

PERSONNEL MODULE

- Keeping the record of personnel's personal information, orientation periods, training records and personnel comparison records (PCR),

- Ensuring the personnel competency of the personnel and authority to calibrate tracking up-to-date,

- Managing his/her authority for calibration are handled in the personnel module.

PURCHASE MODULE

-   Entering their purchase requests in detail and tracking if that request is approved by the manager and the

    request's commissioned status, for all of the personnels

    are the main features of the purchase module.

SUPPLIER EVALUATION MODULE

- Evaluating the suppliers with scores and deciding whether work with the same supplier or changing it

 with a new supplier according to the supplier's attitude

 are handled in supplier evaluation module.

DOCUMENTATION MODULE

- Uploading all relevant documents such as Quality Handbook, Procedures, Outsourced Documents, Calibration Instructions etc.

- Controlling the documents up-to-dateness according to their review periods,

- Informing the personnels about the uploaded or updated documents in the system via email

  are the features that documentation module provides.

INTERLABORATORY COMPARISON(IC) MODULE

- Analyzing En and z scores,

- Creating IC lists,

- Keeping the IC records planned and applied in the Interlaboratory Comparisons

  are managed in the Interlaboratory Comparison Module.

INTERNAL AUDIT MODULE

- Allowing the internal audits with the questions in the system systematically,

- Changing the question lists according to the TS EN ISO 17025 revisions

- Allowing to track the activities performed by entering the nonconformity, if any, into the Corrective Preventive Action (CPA) Module,

- Announcing the audit date to personnels who are going to be auditor or audited are the main facilities provided by the Internal Audit module.

Corrective Preventive Action (CPA) Module

- Tracking the internal audits, customer audits or complaints, Türkak Audit nonconformities, nonconforming works etc.
- Analysing the root causes,
- Tracking the applied corrective and preventive actions

  are maintained in CPA module.

SURVEY MODULE

- Sending the Customer Satisfaction Survey via email automatically,

- Reporting the feedbacks,

- Creating improvement titles according to answers received from the customer are managed in this module.

SOME OTHER ADVANTAGES
OF THE MANAGEMENT SYSTEM

- Storing the certificates in a digital environment,

- Accessing the management system online,

- Minimizing the overlook of errors,

- Avoiding the waste of time with ink signature,

- Avoiding the waste of paper and saving nature

SOME OTHER ADVANTAGES OF THE MANAGEMENT SYSTEM

- Inability to select the expired calibration reference devices with the help of tracking the calibration periods for calibration reference devices,

- Analyzing the 4-year Interlaboratory Comparison cycles,

- Avoiding the waste of time by presenting all documents such as Quality Handbook, Instructions - Procedures, etc. quickly to the auditor and exchanging more information about good laboratory practices and technical experiences with auditors,

- Analyzing the efficiency of the laboratory easily and statistically.

DISADVANTAGE
OF THE MANAGEMENT SYSTEM

- Being in need for protection and improvement against the external online attacks since it is accessible from internet.

Precautions:

- Backing up in more than one location to avoid data loss.

- Protecting the database in which the data is stored with a few-stage encryption method.

- Protection of the server with licensed software that prevents attacks from outside.

KAL-MET KALİBRASYON LABORATORIES have been supporting the Zero Waste Project initiated by the Republic of Turkey Ministry of Environment and Urbanization in 2017 since 2013 and saves at least 200,000 papers per year by using Kal-Met Private Data Management System.

THANK YOU FOR LISTENING

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