



# QR VIEWS

A BIMONTHLY PUBLICATION OF NIQR TRIVANDRUM BRANCH

FOR PRIVATE CIRCULATION AMONG MEMBERS ONLY

No 01/2022

Jul 2021 - Jan 2022

**Special Issue**



## *Tribute to* NK Debnath

Passed away on 4 June 2021

*As a tribute to N K Debnathji a special issue of QR Views is being brought out. His contribution for the growth of NIQR is brought out here. To remember him some snippets are also presented in this Special Edition.*

*Editorial Team*



23.7.92

1/CAP/01/92

Minutes of the E.C. meeting (EC-01/92-94) held on 17.7.92 at  
30 PM at Hotel Pankaj, Thiruvananthapuram.

Members present :

- Shri. N.K. Debnath
- Shri. K. Rajagopal
- Shri. E. Rajagopalan
- Shri. T. Chockalingam
- Shri. Thampy Thomas

- Shri. Abdul Samad
- Shri. C. Athi Pagavan
- Dr. M.K. Ghose
- Shri. M. Sasidharan Nair
- Shri. V.K. Ramakrishnan

Shri. N.K. Debnath, Vice Chairman chaired the meeting in the absence of out-going Chairman.

The present EC appreciated the works/ services done by out-going Chairman and the EC members.

Responsibilities among the newly elected EC members were unanimously identified as follows.

- Shri. N.K. Debnath Vice Chairman
- Shri. K. Rajagopal Vice Chairman
- Shri. C. Athi Pagavan Secretary
- Shri. Thampy Thomas Joint Secretary
- Shri. S. Rajagopalan Treasurer
- Dr. M.K. Ghose Convener, Seminar & Training.
- Shri. V.R. Ramakrishnan Co-Convener, Seminar & Training
- Shri. T. Chockalingam Convener, Programmes
- Shri. M. Manikandan Convener, Membership
- Shri. C. Venugopal Convener, Propagation of QR movement
- Shri. M. Sasidharan Nair Convener, Publicity.
- Shri. M. Sasidharan Nair Convener, Propagation of QR movement



1992 10 14



- BUREAU OF INDIAN STANDARDS (BIS)
- INSTITUTE OF STANDARDS ENGINEERS (SEI) Kerala Section
- NATIONAL INSTITUTION FOR QUALITY AND RELIABILITY (NIQR) Thiruvananthapuram Branch
- AND
- INSTITUTION OF ENGINEERS (INDIA) Kerala State Centre

### request your presence on the occasion of WORLD STANDARDS DAY CELEBRATIONS

on Wednesday 14 October 1992 at 1800 h  
at the Conference Hall, Institution of Engineers (India) Observatory Hill, Thiruvananthapuram - 695 033

Shri P. K. KUNHALIKUTTY,  
Hon'ble Minister for Industries,  
Government of Kerala

will inaugurate the celebrations.

Shri T. RAM SUDHIR,  
General Manager, HMT Limited &  
Chairman, SEI, Kerala Section

will preside.

PROFESSIONAL ORGANISATIONS  
THIRUVANANTHAPURAM

cordially invite you to be present during

### FELICITATIONS TO SPACE SCIENTISTS THE SUCCESSFUL SPACE MISSION ASLV - SROSS - INSAT

Venue : Hotel Pankaj, Thiruvananthapuram  
Date & Time : July 30, 1992, 6.30 p.m. Tea : 6

#### PROGRAMME

- Welcome address : Shri. M. Abdul Majeed  
President, SRMI  
(Group Director, ASMG, V)
- Presidential address : Dr. M.S. Valiathan  
Director, SCTIMST

- Felicitations :  
Dr. A.D. Damodaran, Chairman, MRSI, (Director,  
Dr. Babu Paul IAS, Aq. VC, University of Kerala  
Shri. K. Mohanachandran IAS, Chairman, ISTD  
(Director, IMG)  
Shri. G. C. Gopala Pillai, Chairman, NIPM & KSPC  
(MD, HDCKL  
Shri. N. K. Debnath, Vice Chairman, NIQR  
(GM, KELTRON)

- Address : Prof. U.R. Rao,  
Chairman, Indian Space Research Org  
Dr. S.C. Gupta, Director, VSSC  
Dr. A.E. Muthunayagam, Director  
Shri. M.S.R. Dev, Project Director  
ASLV, VSSC  
Thanks : Shri. M.S. Mani, Ch

#### PROGRAMME

- 1800 h TEA
- 1815 h Theme : INTERNATIONAL STANDARDS  
— A KEY TO OPEN MARKETS
- Welcome : Shri P. RABINDRANATHAN,  
Director, BIS, Thiruvananthapuram
- Inaugural Address : Shri P. K. KUNHALIKUTTY,  
Hon'ble Minister for Industries,  
Government of Kerala
- Presentation of the theme: Shri V. KALYANASUNDARAM,  
Joint Director, BIS,  
Thiruvananthapuram
- Presidential Address : Shri T. RAM SUDHIR,  
General Manager,  
HMT Limited, Kalamassery
- Reading of Messages : Dr. P. A. RAMASWAMI,  
Managing Director, KITCO &  
Vice-Chairman, SEI, Kerala Section
- TECHNICAL SESSIONS :  
Chairman

Speakers

- 1) Shri N. K. DEBNATH,  
General Manager (QA),  
Keltron Limited,  
Thiruvananthapuram
- 2) Dr. C. S. NARAYANAN,  
Head (Food Division),  
Regional Research

**NATIONAL INSTITUTION FOR QUALITY AND RELIABILITY**  
**THIRUVANANTHAPURAM BRANCH**  
**ONE DAY SEMINAR ON ISO 9000**  
**AND ITS IMPLICATIONS**  
 DECEMBER 7, 1991  
 BHARAT HOTEL, ERNAKULAM

**NIQR**

Seminar : Mr. K. Rajagopal  
 Chairman : Mr. S. Rajagopalan  
 Convenor : Mr. Arup Gupta  
 Coconvenors : Mr. K. Vasudevan

24, October 1991

Branch : Dr. P. V. S. Namboodiripad  
 Chairman : Mr. N. K. Debnath  
 Vice Chairman : Mr. T. Chockalingam  
 Secretary : Mr. Thampi Thomas  
 Treasurer :

No. NIQR/TVM/91/SEM/01

Dear Sir/Madam,

Sub : One Day Seminar on "ISO 9000 and its Implications"  
 at Bharat Hotel, Ernakulam, December 7, 1991.

If you are in export business either as direct exporter or as supplier to exporter it is mandatory that you must be aware of ISO 9000 so that your business can be sustained beyond 92 January. In case you are importing goods it is all the more necessary that you ensure quality of goods so that ISO 9000 helps and you must have in depth in it. International Organisation for Standardisation (ISO) has published ISO 9000 series and integrated Group of Standards on quality policy, management and systems. This alongwith ISO 8402, a terminology standard represents international agreement, on the terminology and Procedures of quality control, quality assurance and quality systems. This quality system is now being introduced all over the world. Such a scheme would not only help manufacturers in improving their product quality, but also promote export of their products. The customers at international level judge the quality of the products from the types of quality system in vogue in the company.

To introduce and clarify about ISO 9000 to the industries in Kerala, NIQR Thiruvananthapuram Branch is organising a Seminar on "ISO 9000 And its Implications" on December 7, 1991. This seminar will highlight the various features of ISO 9000 and models for their implementation. It will also bring out the various implications of the industries which adopt it.

The seminar will be useful for the personnel in Research & Development, Production, Assurance, Purchase, Marketing and other functional areas.

Looking forward to hear from you soon.  
 Thanking you.

**NATIONAL INSTITUTION FOR QUALITY AND RELIABILITY**  
**THIRUVANANTHAPURAM BRANCH**  
**ONE DAY SEMINAR ON ISO 9000**  
**AND ITS IMPLICATIONS**  
 SEPTEMBER 11, 1991  
 HOTEL PANKAJ, THIRUVANANTHAPURAM

**NIQR**

Seminar : Mr. K. Rajagopal  
 Chairman : Mr. S. Rajagopalan  
 Convenor : Mr. Arup Gupta

12, August 1991

No. NIQR/TVM/91/SEM/01

Dear Sir/Madam,

Sub : One Day Seminar on "ISO 9000 and its Implications"  
 at Hotel Pankaj, Thiruvananthapuram, September 11, 1991.

You may be aware that International Quality System is becoming almost mandatory for exporting products to European countries from January 1992. International Organisation for Standardisation (ISO) has published ISO 9000 series and integrated Group of Standards on quality policy, management and systems. This alongwith ISO 8402, a terminology standard represents international agreement, on the terminology and Procedures of quality control, quality assurance and quality systems. This quality system is now being introduced all over the world. Such a scheme would not only help manufacturers in improving their product quality, but also promote export of their products. The customers at international level judge the quality of the products from the types of quality system in vogue in the company.

To introduce and clarify about ISO 9000 to the industries in Kerala, NIQR Thiruvananthapuram Branch is organising a Seminar on "ISO 9000 And its Implications" on September 11, 1991. This seminar will highlight the various features of ISO 9000 and models for their implementation. It will also bring out the various implications of the industries which adopt it.



A BIMONTHLY PUBLICATION OF NIQR TRIVANDRUM BRANCH  
 No. 59

FOR PRIVATE CIRCULATION AMONG MEMBERS ONLY  
 November-December 1991

**MESSAGE**

It is well known that Quality Circle was formed in 1962 in Japan. To start with, the main concentration was to form groups on shop floors to study the QC principles. Since then Japanese Union for Scientists & Engineers (JUSE) has been propagating Quality Circle activities in Japan. As on December 1989, Japan had 3 lakh Quality Circles registered with JUSE. There are many more unregistered Circles and it was estimated that the total number of Circles than 2,000 Quality Circle Conferences in Japan and 1300 Training Programmes covering more than 2,30,000 participants up to December 1989. It has also conducted more than 2,50,000 Quality Circle Contests. They have also organised 180 Conferences on Quality Circles.

In contrast, the first Quality Circle in India was formed in 1982. By 1987, there were only 5,700 Circles and by now it may be of the order of 10,000 Circles. OCFI has been organising Training Programmes and Conferences. The total number of persons trained in India may be of the order of 40,000 to 1,00,000 and the number of Quality Circle Contests is around 30, the number of training programmes organised by OCFI is of the order of 40. OCFI has also organised 3-4 National Conventions. To supplement the OCFI efforts, NIQR is also conducting a large number of Training Programmes in Industries. NIQR Branch has also started organising Quality Circle Contests. Various programmes on Quality Circle in Trivandrum Branch organised. Various expert on Quality Circle during 1984. Recently, NIQR, Trivandrum Branch organised the first Quality Circle Case Study Contest in Trivandrum. There were 13 contesting Circles and more than 150 participants in this Contest. Awards were distributed to 3 circles from TELK, Tata Tea & KELTRON respectively. In our endeavour to propagate Quality Circle, we solicit the support, co-operation and assistance from Government, media people, Industries and all members of NIQR. I personally request NIQR members to actively propagate the Quality Circle movement to the various Organisations in Kerala.

N. K. DEBNATH  
 Vice Chairman, NIQR Trivandrum Branch

**QUALITY IMPROVEMENT THROUGH QUALITY SOLDERING**  
 By N. K. Debnath  
 General Manager (QA) CGAD, Keltron

**1.0 INTRODUCTION**

"Quality", in the shop floor is defined as conformance to specifications or specified standards. Of course, these specifications and standards drawn up so as to make the product "Fit for use" by the customers or the users. It is well known that Quality has three definite phases viz. Quality Design, Quality of Conformance and Quality of Performance. The Quality of Conformance is mainly taken care of during the manufacturing processes. Therefore, there is a need to standardise the process so as to optimise the Quality of Conformance.

2. In Electronic Industry, one of the vital operations dealing with Quality of Conformance is interconnection. There are different types of interconnection techniques such as soldering, crimping, wire wrapping etc. Most widely used interconnection technique, as on today, is soldering which ultimately produces solder joints. A solder joint is

and residues such as finger grease is essential for good soldering. A good solder joint can be described as having smooth, shiny undisturbed, fully spread, concave solder fillet between the components and the conductor patterns. There are three soldering techniques such as hand soldering, machine soldering, and dip soldering. Dip soldering on the economic viability & Quality ending on the process/materials suitable requirement, a particular method is to be selected and the process/materials suitable for that method has to be made available. Many a times, it has been found though there is a standard process it is not being followed properly mainly because of inadequate training, ignorance, non insistence for compliance etc. This gives way to a number of solder defects such as cold joint, dry joint, over heated joint, under heated joint, excess or less solder joint, improperly arranged joints, delamination, pin holes, blow holes, dewatering etc. Therefore, a good solder joint shall be free of all these defects, which needs the following considerations.

- (a) Proper selection of materials.
- (b) Tools and equipments



# *Reminiscences on* NK Debnath



**Shri. C. Athi Pagavan**  
*Chairman,  
NIQR Trivandrum Branch  
Former Group Director  
RQA-SISG, IISU*

My association with Debnathji started in early nineties. He was instrumental in creation of Quality Circles in KELTRON. When NIQR organized Quality Circles contest, we used to get minimum ten Quality Circles for the contest from KELTRON. Likewise, his contribution in creating awareness on ISO 9000 through NIQR is laudable. His contribution especially for our “QR Views” needs special mention. His messages as Vice Chairman and Quality related articles and case studies are still in our memories. Few years back when I visited his House at Kotturpuram, Chennai Debnathji received me with affection and I had my breakfast with him. The love and affection showered by Mrs. Debnath & Debnathji will be evergreen in my memories.

# *Tribute to* NK Debnath



**Shri. M. Manikandan**  
*GM (Rtd.), Keltron &  
Ex. Secretary &  
Executive Committee  
Member of NIQR/IAQR,  
Trivandrum Branch.*

Shri Nirmal Kumar Debnath, fondly called NK Debnath joined Keltron Controls, one of the leading Divisions of KELTRON in the early eighties and proved his professional capabilities. He established QA systems in the Division. Keltron Controls received many key orders in spite of stiff competition. He was one of the key persons for the Progress and achievement of this Division. In appreciation of his sincere efforts, the Top management of Keltron created a New Department, CQAD (Corporate Quality Assurance Department) at the Corporate level under his leadership to spread the Quality culture in all Divisions and Subsidiaries of Keltron. Within a short span of time, he identified most of the shortfalls. He developed and implemented Quality Systems and Procedures in all Divisions and Subsidiaries of Keltron. He also trained many of us in the Quality Systems and procedures. He also ensured that those systems and procedures were implemented and practised strictly in all those places. Many modern Quality Management Techniques were introduced and practised successfully by him in Keltron. Keltron was a member of some Technical committees of BIS (formerly ISI) during his leadership. Many products of Keltron received Quality certificates during his tenure in Keltron. He was the key person to introduce Quality Culture in Keltron. All in Keltron, from the top to bottom remember him for all the efforts he had put into establishing the Quality Systems. It may be added that his sincerity, dedication, and true professional approach had earned good name and market for many of the Keltron Products, Systems and Projects. He was one of the pillars to make Keltron, a brand name synonymous with quality. He successfully conducted the All India Quality Conference, inaugurated by the then Governor of Kerala in the year 1984, when he was the Trivandrum Branch Secretary of the then IAQR. He was a Guru, a guide and close friend to me. I would like to record that he was one of the main persons, who had contributed to my professional achievements.