

Brief Profile

Name:	Santosh Kumar Das
Date of Birth:	07/05/1962
Educational Qualification:	
<i>Ph. D.</i>	-
<i>M. Tech</i>	IIT-BHU (Electronics Engineering)
<i>B. Tech</i>	BIT Sindri (ECE)
Work Experience:	
• <i>Teaching</i>	2 Yrs
• <i>Research/Industry</i>	7Yrs. /29yrs
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Area/Subjects of Interest	VLSI
Teaching:	
<i>Subjects Taught at UG level</i>	VLSI Design, IC Technology, Digital Switching System
<i>Subjects Taught at PG level</i>	-
Research Guidance	
<i>No. of Ph.D./M.Tech Guided</i>	-
Research Publications	
• Journals	-
• Conferences	-
• Book Chapters	-
Patent/IPR (Books Published etc.)	Research work under GOI(not publishable attached herewith)
No. of National/International Conferences attended/Paper Presented	-
STC/FDP/Summer/Winter Schools/Workshops/Seminars attended	-
Memberships of the Professional Societies	-
Awards/Honors	Letter of Appreciation awarded from Telecom Commission (GOI)
Any other relevant Information	

LIST OF PUBLICATIONS (Some research work under GOI)

Some of the significant R&D achievements (during the seven years of R&D efforts of mine under TEC (which was earlier known as Telecom Research Centre,GOI, New Delhi some part of which became C-DOT)

(1) E10B exchanges used to have a limitation in terms of maximum BHCA of around 180K. A traffic near (or exceeding) that was often causing a crash of the entire switch. Frequent initializations were needed during Busy Hour for such heavily loaded exchanges. During the initialization process the entire exchange was out of service. Not only that in multi-exchange cities (like Delhi , Mumbai, Kolkata) one exchange being out of service may result in adjacent extremely loaded exchanges (due to sudden spurt of failing call attempts to that particular heavily loaded exchanges) , This ripple effect had collapsed the entire network of the city on many occasions.

A high level task force (including me) was created to find the solution.

It was found that the above was more prominent during January to March period when massive efforts were on to provide new subscribers' lines without simultaneously augmenting the control units of the exchanges. Also an overload control capability was absent in E10B exchanges.

I developed the overload control capability in E10B exchanges. As a result of this the above problem was permanently solved.

(2) CLIP (calling line identification presentation) was earlier possible either in GSM phones or ISDN phones only.

Being part of the committee (responsible for framing the specifications for large size switching system) I proposed (&that was approved later) CLIP to be made available even for an analogue phone of a digital exchange.

I then developed the same in E10B exchanges in 1996. This was my last achievement in DOT.

DOT earned Rs 50 per months from each of the millions of subscribers which opted for this feature.

(3) DOT (Department of Telecommunications, Government of India) was earlier charging only one unit for a local call [Intra SDCA (short distance charging area)]for an unlimited period.

It was decided to charge the same on a 5-minute pulse rate basis. The new requirement also was added to provide an audible warning tone to the caller (15 seconds prior to charge the second unit at the end of 5 minutes) during conversation.

I developed the call processing software in E10B exchanges to meet the above requirement in 1992.

(4) India used to receive more call minutes from other countries than sending the call minutes to other countries. As a result VSNL (Videsh Sanchar Nigam Limited) used to earn huge foreign exchange. This trend for many years.

During a particular period of it was discovered that this trend reversed for Gulf countries. India started losing foreign exchange to Gulf countries.

In high level committee was constituted by members from TEC (including myself), VSNL, Directorate of revenue intelligence and other security agencies.

It was found that Mumbai Telephones had given COF (three party conference) facility to PCOs. Some of them were misusing (with the connivance of some corrupt MTNL technicians). If a 3-party conference call was made (1-PCO,2-local caller,3-a called party in a gulf-country)and during the conversation period the PCO line (party numbe1 who initiated both the local call and the international call) was force-released using a maintenance command by a technician in the exchange, it was possible to charge PCO at the end of conversation because it was already force-released without the disconnection of the other two parties.

Since it was causing huge revenue loss TEC was about to refer this issue to ALCATEL FRANCE (who had given transfer of Technology to India).

But I requested to assign this problem to me. I developed this software successfully.

There were many more developments leading to 3 releases of control unit software in the Indian Large size E10B exchanges at more than 400 cities.

Even during my Airtel Bharti period I applied innovation and for the first time used RSU as dual parented to two main EWSD switches saving them from being out of service due to OFC cuts in MP.