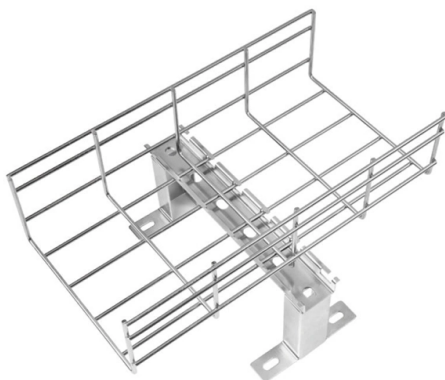


The earliest optical fiber communication cable in South Asia



Overview

In the 1960s at (STL) based in, Essex, England, Kao and his coworkers did their pioneering work in creating as a telecommunications medium, by demonstrating that the high-loss of existing fibre optics arose from impurities in the glass, rather than from an underlying problem with the technology itself.

Key Takeaways

The Asia Pacific Cable Network (APCN), operational in January 1997, is the earliest optical fiber communication cable in South Asia.

The Asia Pacific Cable Network (APCN) was a pioneering submarine fiber optic system spanning approximately 12,000 km, linking multiple countries in the Asia-Pacific region, including Japan, Korea, Taiwan, Hong Kong, the Philippines, Indonesia, Singapore, Malaysia, and Thailand (with an extension to Australia) and marking the first SDH-enabled submarine cable in the region . The system consisted of two fiber pairs with a design capacity of 5 Gbps (2xSTM-16), representing a significant leap in digital communication capabilities for South Asia and neighboring countries .

Technical and Historical Significance

- Deployment Year: January 1997, making it the earliest operational optical fiber cable in South Asia .
- Technology: SDH (Synchronous Digital Hierarchy), which allowed high-speed, reliable digital transmission across long distances.

- Consortium and Suppliers: The cable was supplied by KDD-SCS, AT&T-SSI, and Alcatel Submarine Networks, with an investment of approximately USD 500 million .
 - Regional Impact: APCN enabled faster, more secure, and higher-capacity communication between South Asian countries and the broader Asia-Pacific region, replacing older coaxial and satellite-based systems and laying the foundation for modern internet and telecommunication infrastructure .
- Extensions and Connectivity

The APCN also included a fiber pair extension to Australia, known as the Jasuruas cable system, linking Jakarta (Indonesia) to Port Headland (Australia) through the Lombok Strait . This extension further enhanced regional connectivity and international data exchange. In summary, the APCN cable system represents the first major optical fiber communication infrastructure in South Asia, significantly improving digital communication capabilities and serving as a foundation for subsequent submarine and terrestrial fiber networks in the region .

Article Content

Charles K. Kao

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In the 1960s at Standard Telecommunication Laboratories (STL) based in Harlow, Essex, England, Kao and his coworkers did their pioneering work in creating fibre optics as a telecommunications medium, by demonstrating that the high-loss of existing fibre optics arose from impurities in the glass, rather than from an underlying problem with the technology itself.

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