

# Finding Aid to The HistoryMakers® Video Oral History with Victor Lawrence

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## Overview of the Collection

<b>Repository:</b>	The HistoryMakers®1900 S. Michigan Avenue Chicago, Illinois 60616 info@thehistorymakers.com www.thehistorymakers.com
<b>Creator:</b>	Lawrence, Victor B.
<b>Title:</b>	The HistoryMakers® Video Oral History Interview with Victor Lawrence,
<b>Dates:</b>	March 6, 2013
<b>Bulk Dates:</b>	2013
<b>Physical Description:</b>	6 uncompressed MOV digital video files (2:55:54).
<b>Abstract:</b>	Electrical engineer Victor Lawrence (1945 - ) serves as the director of the Center for Intelligent Networked Systems as well as associate dean and Charles Batchler Chair Professor of Engineering at the Stevens Institute of Technology. Lawrence was interviewed by The HistoryMakers® on March 6, 2013, in Eatontown, New Jersey. This collection is comprised of the original video footage of the interview.
<b>Identification:</b>	A2013_063
<b>Language:</b>	The interview and records are in English.

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## Biographical Note by The HistoryMakers®

Electrical engineer Victor B. Lawrence was born in 1945 in Ghana, West Africa. Lawrence attended the Imperial College of Science and Technology at the University of London where he received his B.Sc. degree in 1968, his M.S. degree in 1969, and his Ph.D. degree in 1972, all in electrical engineering.

Upon graduation, Lawrence worked for one year as a development engineer in the United Kingdom and then spent two semesters teaching at Kumasi University of Science and Technology in Ghana. Lawrence joined Bell Laboratories in 1974 and

served as supervisor of AT&T Information Systems Laboratories, department head of Data Communication Research, director of Advanced Multimedia Communications, and vice president of Advanced Communications Technology before his departure in 2005. His application of digital signal processing to data communications in the late 1980s and early 1990s led to many significant advances such as voice-band modems and DSL. Lawrence did the pioneering work and led the development of the “Studio Encoder” and the receiver chip-set for the Sirius Radio Satellite System. Beginning in 1996, Lawrence lectured for several years at the U.S. Industrial College of the Armed Force. As a visiting professor, he taught signal processing and data networking courses at the University of Pennsylvania, Rutgers University, Princeton University, and Columbia University. Lawrence also instructed courses in technology management and technology incubation at Bell Laboratories to new engineers.

In 2005, Lawrence was appointed as the director of the Center for Intelligent Networked Systems, and was named associate dean and Charles Batchler Chair Professor of Engineering at the Stevens Institute of Technology. He has co-authored five books: *Introduction to Digital Filters*, *Tutorials on Modem Communications*, *Intelligent Broadband Multimedia Networks*, *Design and Engineering of Intelligent Communications Systems*, and *The Art of Scientific Innovation*. Lawrence holds more than twenty U.S. and international patents and has had more than forty-five papers in referenced journals and conference proceedings, covering the topics of digital signal processing and data communications.

In recognition of his distinguished career, Lawrence was elected as a Fellow into the National Academy of Engineering, the Institute of Electrical and Electronics Engineers (IEEE), and Bell Laboratories. His technical achievements include the 2004 IEEE Award in International Communication. Lawrence was a co-recipient of the 1984 J. Harry Karp Best Paper Award, the 1981 Gullemmin-Cauer Price Award, and he shared the 1997 Emmy Award for HDTV Grand Alliance Standard with other Bell Laboratories employees. One of the many charitable and educational activities he is involved in is the International Cultural Exchange Center, which he co-founded.

Victor B. Lawrence was interviewed by *The HistoryMakers* on March 10, 2013.

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## Scope and Content

This life oral history interview with Victor Lawrence was conducted by Larry

Crowe on March 6, 2013, in Eatontown, New Jersey, and was recorded on 6 uncompressed MOV digital video files. Electrical engineer Victor Lawrence (1945 - ) serves as the director of the Center for Intelligent Networked Systems as well as associate dean and Charles Batchler Chair Professor of Engineering at the Stevens Institute of Technology.

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## **Restrictions**

### **Restrictions on Access**

Restrictions may be applied on a case-by-case basis at the discretion of The HistoryMakers®.

### **Restrictions on Use**

All use of materials and use credits must be pre-approved by The HistoryMakers®. Appropriate credit must be given. Copyright is held by The HistoryMakers®.

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## **Related Material**

Information about the administrative functions involved in scheduling, researching, and producing the interview, as well as correspondence with the interview subject is stored electronically both on The HistoryMakers® server and in two databases maintained by The HistoryMakers®, though this information is not included in this finding aid.

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## **Controlled Access Terms**

This interview collection is indexed under the following controlled access subject terms.

### **Persons:**

Lawrence, Victor B.

Crowe, Larry (Interviewer)

Hickey, Matthew (Videographer)

## **Subjects:**

African Americans--Interviews  
Lawrence, Victor B.--Interviews

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## **Organizations:**

HistoryMakers® (Video oral history collection)

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The HistoryMakers® African American Video Oral History Collection

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Stevens Institute of Technology Bell Telephone Laboratories University of  
London. Imperial College of Science and Technology

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## **Occupations:**

Electrical Engineer

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## **HistoryMakers® Category:**

ScienceMakers

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## **Administrative Information**

### **Custodial History**

Interview footage was recorded by The HistoryMakers®. All rights to the interview have been transferred to The HistoryMakers® by the interview subject through a signed interview release form. Signed interview release forms have been deposited with Jenner & Block, LLP, Chicago.

### **Preferred Citation**

The HistoryMakers® Video Oral History Interview with Victor Lawrence, March 6, 2013. The HistoryMakers® African American Video Oral History Collection, 1900 S. Michigan Avenue, Chicago, Illinois.

## Processing Information

This interview collection was processed and encoded on 2/5/2020 by The HistoryMakers® staff. The finding aid was created adhering to the following standards: DACS, AACR2, and the Oral History Cataloging Manual (Matters 1995).

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## Other Finding Aid

A Microsoft Access contact database and a FileMaker Pro tracking database, both maintained by The HistoryMakers®, keep track of the administrative functions involved in scheduling, researching, and producing the interview.

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## Detailed Description of the Collection

### Series I: Original Interview Footage

Video Oral History Interview with Victor Lawrence, Section A2013\_063\_001\_001, TRT: 1:29:02 2013/03/06

Victor Lawrence describes his family background. Lawrence's mother, Ellen Sarku Nettey, was born in Accra, Ghana in 1910. She belonged to the Ga tribe in Ghana, and Lawrence describes the history of this tribe. Nettey attended an Anglican missionary school in Accra, and was greatly influenced by the nuns there. After completing her education, she worked as a teacher. Lawrence talks about his mother's growing up in pre-independent Ghana, and the changes in the community structure in the post-independence era. Lawrence's father, Nathan Codjo Lawrence, was born in Accra in 1900. In the 1930s, after completing his primary education in Ghana, he moved to London, England, where he obtained his law degree at the University of London. Lawrence talks about his father's personality, his struggles in

London, his faith in the Anglican Church, his law practice in Ghana, and his service as an educator and reformist in Ghana.

Affirmative action programs.

Affirmative action programs.

Affirmative action programs.

Affirmative action programs.

Affirmative action programs.

Video Oral History Interview with Victor Lawrence, Section A2013\_063\_001\_002, TRT: 2:34:41 2013/03/06

Victor Lawrence was born and raised in Accra, Ghana, where as a young boy, he witnessed the country's Independence Movement in the 1950s. He attended Government Boys School, where he was interested in math and science. Lawrence talks about his parents, his likeness to them, his childhood memories, his household, and the neighborhood of Asylum Down where he grew up. He also discusses the combined influences of religion and traditional culture on Ghanaian life, and describes a Ghanaian wedding as an example of this. Lawrence also discusses slave trade in Ghana, and his visit to the Gate of No Return at Cape Coast, Ghana. He talks about the key players in Ghana's independence struggle against Great Britain, and the grand celebrations that followed. Ghana, previously known as the Gold Coast, gained independence from the British in 1957, becoming the first African State to become independent from colonial rule.

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Video Oral History Interview with Victor Lawrence, Section A2013\_063\_001\_003, TRT: 3:29:22 2013/03/06

Victor Lawrence attended Achimota School, which is a well-known boarding school in Ghana. He also talks about his interest in repairing gadgets, and his summer employment in Accra. Lawrence completed his A-level

examinations in 1964, and in 1965, he began his undergraduate studies in electrical engineering at the Imperial College in London. He describes his experience as an undergraduate student in London in the 1960s. Lawrence went on to pursue his Ph.D. in electrical engineering at the Imperial College, where he became one of the first to work in the field of digital signal processing. He describes the mentorship of his doctoral advisor, Professor Colin Cherry, and his dissertation entitled 'Design of Digital Field Tests Using Orthogonal Functions'. Lawrence also describes how he paid for his education by working restaurant jobs and at the youth hostel where he stayed.

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Video Oral History Interview with Victor Lawrence, Section A2013\_063\_001\_004, TRT: 4:29:25 2013/03/06

In 1972, Victor Lawrence received his Ph.D. degree in electrical engineering from the Imperial College in London. His work in the area of digital signal processing has widespread applications. Soon after his doctoral studies, Lawrence was recruited by AT&T Bell Laboratories. He instead returned to Ghana in 1972 to teach at Kumasi University, but decided to accept the offer from Bell Labs because of the political instability in Ghana in the 1970s. He describes his journey to the U.S., and his early experiences here. He also describes the help that he received from Kent Mina and Solomon Buchsbaum at Bell Labs. Lawrence discusses the rich scientific environment at Bell Labs, his work on stabilizing digital filters, and in creating the global compatibility of data networks. He also describes the applications of his work in digital signal processing, and some of the advances made at Bell Labs since the 1970s.

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Video Oral History Interview with Victor Lawrence, Section  
A2013\_063\_001\_005, TRT: 5:32:08 2013/03/06

From 1974 to 2006, Victor Lawrence spent thirty-two years at Bell Laboratories, where he contributed to research and development as well as administration. He describes his work in digital signal processing and data communications. Lawrence and his team won an Emmy Award in 1997, for their work in building the first HDTV receiver. Lawrence served as the director of the advanced multimedia communications department at Bell Labs in 1994, and as the vice president of advanced communications technology from 1995 to 2005. He discusses his professional awards and recognitions as well as the books that he has authored. He also reflects upon his career and legacy at Bell Labs, shares his perspectives on Y2K, talks about his work with intelligent networks, and discusses his involvement with the U.S. Sub-Committee on Science and Technology. Lawrence has also been closely involved with the Baharicom Development Company, to increase internet connectivity in Africa.

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Video Oral History Interview with Victor Lawrence, Section  
A2013\_063\_001\_006, TRT: 6:21:16 2013/03/06

In this closing section of the interview, Victor Lawrence talks about his work on submarine communications to increase communication technologies in Africa, and his work on intelligent networks at Stevens Institute of Technology. Lawrence discusses the “age of leisure,” or the role of human beings as technology advances. He also reflects upon his life, his career, and shares how he would like to be remembered. Lawrence talks about the potential for socioeconomic exchange between Africa and America,



the development of his native country of Ghana, his involvement in STEM education, and his family.

Lawrence is the co-founder and president of a non-profit organization called International Cultural Exchange Center (ICEC), which seeks to bridge differences through cultural understanding.

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