



Discover How SBE Can Help Take Your Career to the Next Level

2010 Wisconsin Broadcasters Clinic



Taking Your Career to the Next Level

SBE President

Vinny Lopez, CEV, CBNT



Taking Your Career to the Next Level

SBE Executive Director

John L. Poray, CAE



SBE Certification Program

SBE Certification Committee Chair

Jim Bernier, CPBE, CBNT



SBE™

SBE Certification Program





SBE Certification Program

Certified Broadcast Networking Engineer (CBNE)

*Expected to debut in early 2011



SBE Certification Program

SBE Certification Director

Megan Clappe



SBE Certification Program

**14 different certifications
currently available.**

- 4 - Entry-levels
- 7 - Engineering levels
 - 3 - Specialists

Entry-level certifications

- Certified Television Operator (CTO)
- Certified Radio Operator (CRO)
- Certified Broadcast Technologist (CBT)
- Certified Broadcast Networking Technologist (CBNT)



Engineering level certifications

5 years of broadcast engineering experience required

- Certified Broadcast Television Engineer (CBTE)
- Certified Broadcast Radio Engineer (CBRE)
- Certified Audio Engineer (CEA)
- Certified Video Engineer (CEV)

COMING SOON

- Certified Broadcast Networking Engineer (CBNE)



Engineering level certifications

10 years of broadcast engineering experience required

- Certified Senior Television Engineer (CSTE)
- Certified Senior Radio Engineer (CSRE)

20 years of broadcast engineering experience required as well as holding CSRE or CSTE

- Certified Professional Broadcast Engineer (CPBE)



Specialist certifications

To qualify for the SBE Specialist certifications, the examinee must hold an engineering level certification.

- 8-VSB Specialist (8-VSB)
- AM Directional Specialist (AMD)
- Digital Radio Broadcast Specialist (DRB)



SBE Certification Exam periods

- February
- April (at the NAB convention in Las Vegas)
- June
- August
- November

SBE CERTIFIED BROADCAST TECHNOLOGIST® (CBT) Application

A

☐ I wish to take the CBT exam during the _____ exam session.
Please choose either: ☐ AM/PM ☐ Television.

☐ I wish to apply for CBT to License.
Copy of valid FCC Radio Technician, Amateur Extra license or SBE Certified Card letter must accompany application.

CBT Member Fee: ☐ \$95 CBT Non-Member: ☐ \$111

Student Fee: ☐ \$40 (from non-member fee)

Send application Attn: Certification Director
(Please type or print)

Payment Method: ☐ Check ☐ Money Order (payable to SBE) ☐ American Express ☐ MasterCard ☐ Visa Total \$ _____
Credit Card # _____ Exp. Date _____ Security Code* _____

Name on Card (if different) _____ Billing Address (if different) _____
* I sign in signature strip on back of card to the right of the printed cardholder's name, and 4 increased digits on the front.

Non-Member fee includes optional membership in SBE through March 31 of the following year (See back for more information).
Information provided in this application will be used to determine eligibility.

Last Name _____ First _____ MI _____ (Home Phone) _____
Mailing Address _____ Business Phone _____
City _____ State _____ Zip Code _____ Fax Number _____
Place of Employment _____ Date Employed _____ Date of Birth (MM/DD/YY) optional
Current Job Title _____ Type of Facility _____ E-mail Address _____

Description of Duties _____
Total years of responsible Engineering Experience: _____ ☐ Radio ☐ TV ☐ Other (check all that apply)

EXPERIENCE RECORD

List in chronological order, beginning with the most recent, all formal experience in Broadcast Engineering or related employment. Indicate fields of specialization under "Position." Please do not limit yourself to the spaces below. The more details you give us about your background the easier it will be for us to correctly judge your application. ATTACH A BRIEF DESCRIPTION OF JOB DUTIES.

From	To	Company Name and Location	Position or Title	Immediate Supervisor
Mo	Yr			

EDUCATION

Transcript MUST accompany application if submitting education for part of the experience requirement, and if applying for Student Membership.

From	To	College, University or Technical Institute	Credits or Yrs Comp	Course or Major	Degree
Mo	Yr				

ADDITIONAL INFORMATION REQUESTED ON REVERSE SIDE

NATIONAL CERTIFICATION COMMITTEE ACTION

☐ Approved ☐ Disapproved Date _____
Comment _____
Signature _____

ADMISSIONS COMMITTEE ACTION

☐ Approved ☐ Disapproved Grade _____
Comment _____ Date _____
Signature _____

SBE CERTIFICATION Application

B

☐ I wish to take the following exam(s) during the _____ exam session:
☐ Certified Broadcast Radio Engineer (CBRE) ☐ Certified Broadcast Television Engineer (CBTE)
☐ Certified Audio Engineer (CEA) ☐ Certified Video Engineer (CVE)
☐ MEMBER FEE: \$95 ☐ NON-MEMBER FEE: \$106

☐ I wish to take the following exam(s) during the _____ exam session:
☐ Certified Senior Radio Engineer (CSRE) ☐ Certified Senior Television Engineer (CSTE)
☐ MEMBER FEE: \$95 ☐ NON-MEMBER FEE: \$161

Student Fee: ☐ \$40 (from non-member fee)

Send application Attn: Certification Director
(Please type or print)

Payment Method: ☐ Check ☐ Money Order (payable to SBE) ☐ American Express ☐ MasterCard ☐ Visa Total \$ _____
Credit Card # _____ Exp. Date _____ Security Code* _____

Name on Card (if different) _____ Billing Address (if different) _____
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Information provided in this application will be used to determine eligibility.

Last Name _____ First _____ MI _____ (Home Phone) _____
Mailing Address _____ Business Phone _____
City _____ State _____ Zip Code _____ Fax Number _____
Place of Employment _____ Date Employed _____ Date of Birth (MM/DD/YY) optional
Current Job Title _____ Type of Facility _____ E-mail Address _____

Description of Duties _____
Total years of responsible Engineering Experience: _____ ☐ Radio ☐ TV ☐ Other (check all that apply)

EXPERIENCE RECORD

List in chronological order, beginning with the most recent, all formal experience in Broadcast Engineering or related employment. Indicate fields of specialization under "Position." Please do not limit yourself to the spaces below. The more details you give us about your background the easier it will be for us to correctly judge your application. ATTACH A BRIEF DESCRIPTION OF JOB DUTIES.

From	To	Company Name and Location	Position or Title	Immediate Supervisor
Mo	Yr			

EDUCATION

Transcript MUST accompany application if submitting education for part of the experience requirement, and if applying for Student Membership.

From	To	College, University or Technical Institute	Credits or Yrs Comp	Course or Major	Degree
Mo	Yr				

ADDITIONAL INFORMATION REQUESTED ON REVERSE SIDE

NATIONAL CERTIFICATION COMMITTEE ACTION

☐ Approved ☐ Disapproved Date _____
Comment _____
Senior Essay Question # _____
Signature _____

ADMISSIONS COMMITTEE ACTION

☐ Approved ☐ Disapproved Grade _____
Comment _____ Date _____
Signature _____
App. Noted _____ Records _____

SBE CERTIFIED PROFESSIONAL BROADCAST ENGINEER® (CPBE) Application

C

Special Instructions: In addition to the completed application form, you must submit a statement showing why you believe your professional experience, educational background and training meet the requirements under this provision.

MUST be currently SBE Certified as a Senior Broadcast Engineer. Letters of reference are also required (See page 7, or www.sbe.org/CPE for details).

MEMBER FEE: ☐ \$110 NON-MEMBER FEE: ☐ \$176

Send application Attn: Certification Director
(Please type or print)

Payment Method: ☐ Check ☐ Money Order (payable to SBE) ☐ American Express ☐ MasterCard ☐ Visa Total \$ _____
Credit Card # _____ Exp. Date _____ Security Code* _____

Name on Card (if different) _____ Billing Address (if different) _____
* I sign in signature strip on back of card to the right of the printed cardholder's name, and 4 increased digits on the front.

Non-Member fee includes optional membership in SBE through March 31 of the following year (See back for more information).
Information provided in this application will be used to determine eligibility.

Last Name _____ First _____ MI _____ (Home Phone) _____
Mailing Address _____ Business Phone _____
City _____ State _____ Zip Code _____ Fax Number _____
Place of Employment _____ Date Employed _____ Date of Birth (MM/DD/YY) optional
Current Job Title _____ Type of Facility _____ E-mail Address _____

Description of Duties _____
Total years of responsible Engineering Experience: _____ ☐ Radio ☐ TV ☐ Other (check all that apply)

EXPERIENCE RECORD

List in chronological order, beginning with the most recent, all formal experience in Broadcast Engineering or related employment. Indicate fields of specialization under "Position." Please do not limit yourself to the spaces below. The more details you give us about your background the easier it will be for us to correctly judge your application. ATTACH A BRIEF DESCRIPTION OF JOB DUTIES.

From	To	Company Name and Location	Position or Title	Immediate Supervisor
Mo	Yr			

EDUCATION

From	To	College, University or Technical Institute	Credits or Yrs Comp	Course or Major	Degree
Mo	Yr				

ADDITIONAL INFORMATION REQUESTED ON REVERSE SIDE

NATIONAL CERTIFICATION COMMITTEE ACTION

☐ Approved ☐ Disapproved Date _____
Comment _____
Senior Essay Question # _____
Signature _____

ADMISSIONS COMMITTEE ACTION

☐ Approved ☐ Disapproved Grade _____
Comment _____ Date _____
Signature _____
App. Noted _____ Records _____

SBE CERTIFIED BROADCAST NETWORKING TECHNOLOGIST® (CBNT) Application

D

This exam was designed for broadcast professionals having a basic familiarity with networks and networking systems as used in a broadcast facility.

☐ I wish to take the CBNT exam during the _____ exam session.
MEMBER FEE: ☐ \$95 NON-MEMBER FEE: ☐ \$121

Student Fee: ☐ \$40 (from non-member fee)

Send application Attn: Certification Director
(Please type or print)

Payment Method: ☐ Check ☐ Money Order (payable to SBE) ☐ American Express ☐ MasterCard ☐ Visa Total \$ _____
Credit Card # _____ Exp. Date _____ Security Code* _____

Name on Card (if different) _____ Billing Address (if different) _____
* I sign in signature strip on back of card to the right of the printed cardholder's name, and 4 increased digits on the front.

Non-Member fee includes optional membership in SBE through March 31 of the following year (See back for more information).
Information provided in this application will be used to determine eligibility.

Last Name _____ First _____ MI _____ (Home Phone) _____
Mailing Address _____ Business Phone _____
City _____ State _____ Zip Code _____ Fax Number _____
Place of Employment _____ Date Employed _____ Date of Birth (MM/DD/YY) optional
Current Job Title _____ Type of Facility _____ E-mail Address _____

Description of Duties _____
Total years of responsible Engineering Experience: _____ ☐ Radio ☐ TV ☐ Other (check all that apply)

EXPERIENCE RECORD
List in chronological order, beginning with the most recent, all formal experience in Broadcast Engineering or related employment. Indicate fields of specialization under "Position." Please do not limit yourself to the spaces below. The more details you give us about your background the easier it will be for us to correctly judge your application. ATTACH A BRIEF DESCRIPTION OF JOB DUTIES.

From	To	Company Name and Location	Position or Title	Immediate Supervisor
Mo	Yr			

EDUCATION
Transcript MUST accompany application if submitting education for part of the experience requirement, and if applying for Student Membership.

From	To	College, University or Technical Institute	Credits or Yrs Comp	Course or Major	Degree
Mo	Yr				

ADDITIONAL INFORMATION REQUESTED ON REVERSE SIDE

NATIONAL CERTIFICATION COMMITTEE ACTION
☐ Approved ☐ Disapproved Date _____
Comment _____
Senior Essay Question # _____
Signature _____

ADMISSIONS COMMITTEE ACTION
☐ Approved ☐ Disapproved Grade _____
Comment _____ Date _____
Signature _____
App. Noted _____ Records _____

SBE SPECIALIST Certification

IMPORTANT: To apply for a specialist certification, you **MUST** be currently SBE Certified at one of the following levels.

I am currently certified as:
☐ AM/Conditional Specialist ☐ Certified Audio Engineer (CEA) ☐ Certified Video Engineer (CVE)
☐ Check all that apply ☐ Certified Broadcast Radio Engineer (CBRE) ☐ Certified Broadcast Television Engineer (CBTE)
☐ Certified Senior Broadcast Radio Engineer (CSRE) ☐ Certified Senior Broadcast Television Engineer (CSTE)
☐ Certified Professional Broadcast Engineer (CPBE)

☐ I wish to take the following specialist exam:
☐ 3-Video Specialist ☐ Certified Video Engineer (CVE)
☐ AM/Conditional Specialist ☐ Certified Broadcast Radio Engineer (CBRE) ☐ Certified Broadcast Television Engineer (CBTE)
☐ Digital Radio Broadcast Specialist ☐ Certified Senior Broadcast Radio Engineer (CSRE) ☐ Certified Senior Broadcast Television Engineer (CSTE)

☐ I wish to take the exam during the _____ exam session.

Member Fee: ☐ \$95 (Please type or print)

Send application Attn: Certification Director
(Please type or print)

Payment Method: ☐ Check ☐ Money Order (payable to SBE) ☐ American Express ☐ MasterCard ☐ Visa Total \$ _____
Credit Card # _____ Exp. Date _____ Security Code* _____

Name on Card (if different) _____ Billing Address (if different) _____
* I sign in signature strip on back of card to the right of the printed cardholder's name, and 4 increased digits on the front.

Non-Member fee includes optional membership in SBE through March 31 of the following year (See back for more information).
Information provided in this application will be used to determine eligibility.

Last Name _____ First _____ MI _____ (Home Phone) _____
Mailing Address _____ Business Phone _____
City _____ State _____ Zip Code _____ Fax Number _____
Place of Employment _____ Date Employed _____ Date of Birth (MM/DD/YY) optional
Current Job Title _____ Type of Facility _____ E-mail Address _____

Description of Duties _____

EXPERIENCE RECORD
List in chronological order, beginning with the most recent, all formal experience in Broadcast Engineering or related employment for the last five years. Indicate fields of specialization under "Position." Please do not limit yourself to the spaces below. The more details you give us about your background the easier it will be for us to correctly judge your application. ATTACH A BRIEF DESCRIPTION OF JOB DUTIES.

From	To	Company Name and Location	Position or Title	Immediate Supervisor
Mo	Yr			

ADDITIONAL INFORMATION REQUESTED ON REVERSE SIDE

NATIONAL CERTIFICATION COMMITTEE ACTION
☐ Approved ☐ Disapproved Date _____
Comment _____
Senior Essay Question # _____
Signature _____

ADMISSIONS COMMITTEE ACTION
☐ Approved ☐ Disapproved Grade _____
Comment _____ Date _____
Signature _____
App. Noted _____ Records _____



SBE Re-certification

SBE Certifications are valid for 5 years.

- Recertification by Professional Credits
- Recertification by examination



Examples of how professional credits may be obtained (but not limited to)

- Broadcast Engineering employment
- Continuing Education Credits (CEU)
- SBE Membership
- Attendance at SBE Chapter Meetings
- Wis. Broadcasters Clinic (You're earning credit right now!)
- NAB attendance
- Factory or In-station schools
- SBE University, SBE Webinars, Ennes Workshops

RECERTIFICATION SERVICE RECORD

NAME: _____ SBE MEMBER # _____

CERTIFICATION LEVEL(S): (_____ # _____ EX. _____) (_____ # _____ EX. _____)



LOCAL CHAPTER MEETING ATTENDANCE RECORD (FILL IN ACTUAL DATES)

YEAR	20__	20__	20__	20__	20__
JAN					
FEB					
MARCH					
APRIL					
MAY					
JUNE					
JULY					
AUG					
SEP					
OCT					
NOV					
DEC					

OTHER RECORDS (FILL IN ACTUAL DATES)

CONVENTIONS/SEMINARS			
SBE EDUCATIONAL OPPORTUNITIES			
PAPERS AND PRESENTATIONS			
ELECTED OR APPOINTED CHAPTER/BOARD			
FACTORY/IN-STATION SCHOOLS			
MISCELLANEOUS			

9102 N. MERIDIAN ST., SUITE 150, INDIANAPOLIS, IN 46260
www.sbe.org PHONE: (317) 846-9000 FAX: (317) 846-9120

MAINTENANCE OF CERTIFICATION (Recertification)

(Revised April 2010)

The SBE Certification Committee has provided this handy folder on recertification at the suggestion of one of our chapter chairmen. There is space for you to keep record of your progress toward recertification, along with a list of professional credits which serve as a reminder that you must keep up with the "state-of-the-art" to remain certified.

It is worthwhile to restate the intent of the SBE Board of Directors when certification was established – that the continued technical development of broadcast engineers was the goal of the Certification Program. The individual growth of certified broadcast engineers and the growth of the professional status of the entire industry is still our major goal. It is not our desire to accomplish this solely through a testing program, but rather through the active participation of each of you in activities that increase your knowledge and value to our profession and to yourself.

Remember, it is your responsibility to maintain your own record of recertification credits.

During the final year of the five-year term of certification, application for renewal must be made to the National Certification Committee on forms available from the certification director or on the SBE website. After evaluation by the local committees, the applications will be returned to the certification director at the SBE National Office for further evaluation by the National Certification Committee.

We have set up the "Maintenance of Certification" Program so you have a great deal of flexibility in choosing the activities in which you wish to participate. We also recognize that some of you are located too far from an SBE chapter to regularly attend chapter meetings or other activities, so we have included several alternate categories that will allow you to earn professional credits toward recertification.

If you have any questions about other activities not listed, write to the Certification Committee now for assistance in meeting your own goals. Don't wait until it is time to apply for recertification...it may be too late then.

James T. Bernier, Jr., CPBE®, CBNT®
Chairman
National Certification Committee



SBE Suggested Reference Lists

Books that you can take into the
exams



Your local
SBE
Chapter!





Education Programs by SBE

SBE Education Committee Chair

David Priester, CPBE



Education Programs by SBE

ENNES

EDUCATIONAL
FOUNDATION TRUST

Ennes Workshops
presented by SBE



SBE Leadership Development Course



Education Programs by SBE

SBE Education Director

Kimberly Kissel




SBE University

- Online
- Set up like a book
- Available anytime, time and time again
- It's smart – knows what areas the student has covered and the last section visited




SBE University

- Exam at the end helps the student ensure material was retained
- Normally takes 8-14 hours to complete a course
- No course costs more than \$99 for SBE Members
- Register online anytime; link, id and passcode emailed automatically



University
on-line. on-demand.


kkissel@sbe.org
[My Account](#) | [Logout](#)



Do you have questions or need help? Please call (317) 846 - 9000 between 8:30 a.m. and 4:00 p.m. ET Monday-Friday, or e-mail us at sbeuniversityhelp@sbe.org anytime.

Hello Kimberly Kissel,

← **Student Name**

 Instructions: If a course or tutorial is locked, you must take the pre-test to unlock it. Otherwise, use the plus and minus icons to expand and explore the contents of courses and tutorials. As you read each article, your progress will be saved. When you've completed 100% of the reading material for a course or tutorial, you'll be eligible to take a post-test.

+ **8-VSB**

0% Complete

← **Course Name**

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Homepage

Once a student is logged in.



PREV



NEXT



HOME



GRADES



PRINT



FONT (+)



FONT (-)

Introduction to 8-VSB

Current Chapter

This course was written by Douglas W. Garlinger, CPBE, 8VSB, CBNT. Mr. Garlinger is a Fellow in the Society of Broadcast Engineers and a Trustee of the Ennes Educational Foundation. He was voted SBE Broadcast Engineer of the Year in 2002 and was selected as SBE Educator of the Year in 1994. Doug was the Director of Engineering of Indiana-based LeSEA Broadcasting Corporation for 23 years. Doug has served as the RF Engineering Manager at Mt. Wilson for NBC owned-and-operated stations KNBC-TV, KVEA-TV and KWHY-TV. Doug is also the author of the SBE Introduction to DTV RF. He is currently employed as a Senior Broadcast Engineer for Qualcomm MediaFLO.

The purpose of this course is to give the student an overview of the 8-VSB system from end to end, providing all the basic information he or she will need to understand the nature of 8-VSB modulation and to recognize deficiencies in the transmitted signal. This information will be invaluable in installing, maintaining and operating a digital television transmitter facility.

Much of the material contained in this course will aid the student in his or her efforts to obtain the SBE 8-VSB Certification.



PREV



NEXT

Chapter Breakdown

TUTORIAL NAVIGATION

8-VSB

1. **Introduction to 8-VSB**
2. 8-VSB Overview
3. Video Compression
4. DTV Audio
5. Active Format Description
6. PSIP
7. 8-VSB Signal and Channel Occupancy
8. The 8-VSB Transmitter Part 1 (Data Processing)
9. The 8-VSB Transmitter Part 2 (Modulator and Filtering)
10. 8-VSB Spectral Display and Mask
11. 8-VSB Transmission Monitoring
12. 8-VSB Receiver
13. Television Power
14. DTV Service Areas
15. Summary of 8-VSB



Do you have questions or



Webinars by SBE

- Subjects of interest to broadcast engineers
- Online seminars – presentation over the Internet, audio via streaming or telephone
- Available live or on-demand
- Affordable – Free up to \$99



Webinars by SBE

Why attendees find webinars useful

“While I'm interested in *traditional* in-person seminars, scheduling is often a problem and often prevent my attending.”

“Regret that I was unable to attend the live webinar (due to work demands), but thank you VERY MUCH for providing this....I found the information extremely useful and helpful!!”



Webinars by SBE

On-Demand Webinars Currently Available

ATSC Mobile DTV

EAS Update for Broadcasters

SBE RF Safety Course

Human Factors in Broadcasting

Maximizing HD and 1080p/60 Cable Performance

Leadership Development Series (3 webinars)

- 1) The Function and Nature of Leadership
- 2) Communication
- 3) Motivation

Event Frequency Coordination



Webinars by SBE - Upcoming

FCC Self Inspection Checklist

November 18, 2010 · 2:00 – 3:30 p.m. ET

Price: SBE Members - \$39; Non-Members - \$55

Instructor: Dennis Baldrige, CPBE, 8-VSB, AMD, DRB, CBNT

Covers the purpose, scope and limitations of the FCC self inspection checklist

For more information and to register for a webinar or course, visit www.sbe.org.

Ennes Workshops

- Full day, educational workshop, normally held 9:00 a.m.-5:00 p.m.
- Breakfast and lunch included
- Affordable – normally less than \$50 for SBE Members
- Relevant information – technical topics of interest to those in radio, television and both
- Diverse group of 8-12 speakers
- Hosted by local SBE Chapters, sometimes in conjunction with another event or organization

Ennes Workshops

“Great presenters, organization and schedule –
learned tons.”

“My first Ennes – I intend to attend more!
Informative and enjoyable”

“Thank you SBE for providing these workshops.”

“Always learn
something new.
Enjoyed the
sessions, will go
again!”

“Always good content”

“Was a pleasure”

“High quality and very
informative as usual”

"Excellent sessions.
An incredible value
in both time and
money."



SBE Leadership Development Course

Held in Atlanta, Georgia, August 3-5, 2010

Largest attendance in course history

25 attendees representing 9 companies

3-Day Course – 2 on introductory concepts and 1 on advanced concepts

Instructor – Rodney Vandever, Professor of Organizational Leadership and Supervision at Purdue University; Leadership Consultant

Subjects – the function and nature of leadership, building winning teams, leadership is an attitude, conflict management, leadership style assessment, communication and more

2011 Course scheduled August 2-4 • www.sbe.org • Location TBD



SBE Leadership Development Course

“I found this program to be very important for me,
for my job and my life. Many thanks.”

“Will help me better understand my employees and
be more patient.”

“Engaging. Informed. Very well presented.”

“a class every
manager should
attend!”

“It was well worth
the \$\$ spent.”

“Very glad I
attended. Many
colleagues speak
highly of this
course.”

“Excellent program.”

“I loved it!!!”



Other SBE Services



SBE
ResumeBank

SBE Store

Books, SBE merchandise and
SBE Membership and Certification Pins



Questions?

The Society of Broadcast Engineers

www.sbe.org