

IEEE AESS
Board of Governors Meeting
VP Education Report

15 October 2007

Robert O'Donnell
VP Education, IEEE AESS

Outline



- **A Word of Introduction**
- **Old Business**
 - **AESS Video Education Program**
 - **Review of Program Goals**
 - **Implementation Progress**
 - **Expansion of Tutorial Program**
 - **Successes and Challenges**
- **New Business**
 - **Proposal to Integrate Live Tutorials and Distinguished Lectures Programs**
 - **Calendar Year 2007 \$\$\$ for Tutorial Expansion**

A Word of Introduction

- **The goal of this video education initiative is to provide low cost, high quality (both technical and video) education videos to our members, particularly our student members.**
- **We are allowed to do this endeavor by two but the emergence of two enabling technologies:**
 - **Low cost, high-resolution, high-quality web cams and camcorders**
 - **The maturation a low cost software package (Camtasia Studio 4), which allows:**
 - **Screen capture of PowerPoint slides, and**
 - **Simultaneous embedding the speaker's, audio and video**
 - **All done in a user friendly “click and drag” Windows environment**

Outline

- **A Word of Introduction**
- **Old Business**
 - **AESS Video Education Program**
 - • **Review of Program Goals**
 - **Tutorials, Courses, and Student Lecture Series**
 - **Implementation Progress**
 - **Expansion of Tutorial Program**
 - **Successes and Challenges**
- **New Business**
 - **Integration of Tutorial and Distinguished Lectures**
 - **Calendar Year 2007 \$\$\$ for Tutorial Expansion**

Review of Program Goals (1)

- **Procure and develop hardware and software infrastructure that will enable acquisition of tutorial, courseware, student lecture series library**
 - Gets server up and running
 - Place initial tutorials on server (at least one)
 - Developed education that webpage and interface to IEEE credit card system, and IEEE AESS webpage
- **Tutorial Goals - Do beta testing of tutorials with three initial lectures**
 - Bistatic radar - Hugh Griffiths (3 hours)
 - Radar systems modeling – Dick Curry (4 hours)
 - Airborne radar and STAP - Dan Rabideau and Steve Kogon (4 hours)
 - Introduction to Radar Systems - Bob O'Donnell (7-9 hours)
 - This tutorial will be placed on Lincoln labs open webpage and available free to all

Review of Program Goals (2)

- **Course Program Goals - Initiate in six months, the recording of a Digital Signal Processing course, by Dimitrius Manolakis**
 - 25 of 1-hour lectures
- **Student Lecture Series Program Goals**
 - In this spirit of not lighting off more than we can handle, postpone major effort in this area for about six months to a year
- **Develop committee infrastructure to support this major education initiative**

Outline

- **A Word of Introduction**
- **Old Business**
 - **AESS Video Education Program**
 - **Review of Program Goals**
 - • **Implementation Progress**
 - **Tutorials, Courses, and Student Lecture Series**
 - **Server hardware and Software Infrastructure Development**
 - **Business Plan (Programmatic and Fiscal)**
 - **Expansion of Tutorial Program**
 - **Successes and Challenges**
- **New Business**
 - **Integration of Tutorial and Distinguished Lectures**
 - **Calendar Year 2007 \$\$\$ for Tutorial Expansion**

Implementation Progress – Server Hardware and Software Infrastructure Development

- **Scott Valcourt UNH is leading the Server effort**
 - The UNH CS expert in server hardware and software at College of Engineering and Physical Sciences (CEPS)
 - Interface to IEEE Web gurus and IEEE AESS website contractor persons
 - Working very well with them
 - Scott has transferred from CS Dept to university CIS support
 - This will insure his longevity with AESS service support
 - The job function of his new position is to develop cooperatives web-based initiatives at UNH, similar to what AESS doing with UNH
- **UNH Dean of (CEPS) chipped in \$ 6K of Scott Valcourt's time to the effort**
 - AESS provided \$5.7 K grant for graduate student labor at \$10.80 per hour to write server and web where code and document saying
 - UNH CEPS will get access to the surplus server space for their video education usage
 - Scott has transferred from CS Dept to university CIS support
 - The server (HW & SW) are funded through December 31, 2007

Implementation Progress – Server Hardware and Software Infrastructure Development

- **Server purchased and up and running with baseline webware in same format as IEEE AESS Web site.**
 - Formal interface to IEEE website is trivial
 - Formal turn on awaits operational activation of education website
- **Software interface to IEEE “credit card software system” is proceeding in a timely manner**
 - IEEE has just shifted over to a new “credit card software system”
 - We were advised by IEEE and not to interface to the old system and then change to the new system but to come up with a new system when it is operational, it became operational in Aug - Sept
 - We are working with IEEE and we should be operational within a month

I will show you a demonstration of the server software in a few moments

Instruction for Lecturers Using Camtasia

- **Several months ago, I recorded and produced a Camtasia generated video, to instruct potential lecturers on the use of Camtasia**
 - **114 PowerPoint slides**
 - **Two versions of the video**
 - **Users who understand Windows - 27 minutes**
 - **“Caveman” Yes, even at caveman can do it!! - 48 minutes**
 - **Iram Weinstein tested the video for me and gave me feedback**
 - **This video was and is being used by initial tutorial and lecture series speakers**
 - **Feedback will be incorporated future versions of this instruction, tutorial**

Demonstration of the instructional video

Implementation Progress - Tutorials

- **Tutorial Goals - Do beta testing of tutorials with three initial lectures**
 - **Bistatic radar - Hugh Griffiths (3 hours)**
 - Hugh has just given me the production discs, **DONE**
 - **Radar systems modeling – Dick Curry (4 hours)**
 - **DONE**
 - **Airborne radar and STAP - Dan Rabideau and Steve Kogon (4 hours)**
 - Lincoln laboratory has set up a Camtasia studio to support this work Authors is very busy with work
 - First two hours expected to be recorded by November 1.
 - It will be a slow process (Guess, tutorial out in 6-9 months)
 - Lincoln Laboratory and Government release will be slow and tedious, but will happen
 - **In Production**

Implementation Progress - Tutorials

- Introduction to Radar Systems - Bob O'Donnell (7-9 hours)
 - This tutorial will be placed on Lincoln Laboratory open webpage and available free to all
 - It is being produced with the assistance of the MIT Open Course Ware (OCW) consortium on campus in Cambridge, and will also be available on the OCW website
 - All view graphs needing “re-rendering” are finished
 - All required copyright releases of photographs have been sent to authors / copyright owners – awaiting many release forms
 - Government re-release of view graphs will follow
 - When view graphs released, course will be recorded and produced
 - Expected production – finished & released by Summer 2008
 - In Process
- Have successfully solicited another tutorial
 - Space-Time Adaptive Processing – Dr Mike Picciolo (possibly with Dr Scott Goldstein)

Implementation Progress - Courses

- **Working to initiate, the recording of a Digital Signal Processing course, by Dimitrius Manolakis**
 - 25 of 1-hour lectures
 - No copyrighted material in his course view graphs
 - Course view graphs need to be released by Lincoln laboratory
 - Potential problems
 - Examining to see if there is a non-competition clauses in his contract with publishers of his book
 - Dimitrius' work load at Lincoln laboratory is very heavy
 - Little time available to record videos, even at home
 - I am watching this closely
 - Looking for other potential courses to record
 - Global Positioning System, etc:
 - Can you give me any ideas for potential course lecturers?

Implementation Progress – Student Lecture Series

- **Three student lectures have been recorded use MIT video equipment**
 - **Synthetic Aperture Radar – Dr Gerald Benitz**
 - **Dr James Kuchar – Integrating Unmanned Air Vehicles in Civil Airspace**
 - **Three-Dimensional Imaging with Arrays of Geiger-Mode Avalanche Photodiodes - Dr Brian Aull**
- **Four other MIT staff members have agreed to participate in this project and will be recording student lectures shortly**
- **All seven lectures have been publicly released**
- **Copyright release issues regarding photos, in their lectures, need to be addressed**
- **Lincoln Laboratory management will approve three best lectures for Web usage**
 - **These should be available for distribution on Web in 3-6 mo.**

Implementation Progress – Student Lecture Series

- **When these three baseline lectures are available for external review, I will visit with high-level management of several aerospace and electronics systems companies and solicit their participation in this program**
 - **The first three lectures will demonstrate the quality (both video and technical), of the content that we expect of their participation**
 - **It will also demonstrate format and be a guideline for developing process issues when working with other organizations**
- **In this area, we are way ahead of schedule, but the road ahead is expected to be slow, because of the release process**
 - **Lincoln Laboratory, and at other participating organizations**

Implementation Progress - Summary

- **A lot has been learned about the process of getting video courseware released, and a lot more will be learned in the coming months. The process will be easier, but not simple, second time**
- **Release review of video material with DOD content will not be straightforward, but it's time-consuming.**
- **Because we are publishing on the Web, authors will need to obtain copyright release, if copyrighted material, particularly photographic, is used in their presentations**
- **We should go live when we have three finished tutorials ready to air**

Business Plan (Big Picture) 2007

- Procure server and its infrastructure and get it operational
- Procure editing infrastructure and yet it operational
- Develop instructional material so that videos recorded easily by tutorial lecturer, at his/her location
 - Develop associated logistics processes
- Procure laptops, Camtasia SW, and web cams
 - Beta-test them operationally with several tutorials
- Integrates server and its associated webware into IEEE AESS website
 - Integrate with IEEE system - for credit card payment
- When three tutorials are ready, to make system operational

Business Plan (Big Picture) 2008

- **GROW THE TUTORIAL PROGRAM CAREFULLY**
 - Add more tutorials as they become available
 - Develop tutorial sources in Europe
 - Broaden tutorial subject matter from radar to the broad range of our Society's interests
 - Develop and Strengthen the Video and Technical Quality monitoring capability
 - Do not sacrifice quality for quantity
 - Goal - add 10 additional tutorials by end of 2008
- **Full Course Development**
 - Get Digital Signal Processing Course into recording phase
 - Grow Introduction to Radar Course into a full Course
 - Add one more Course (e.g. GPS)

Business Plan (Big Picture) 2008

- **Continue Development of Student Lecture Series**
 - **When first 3 videos (from Lincoln Laboratory) have been publicly released, do mass solicitation (10 selected institutions) to each develop to lectures for the web based library of videos lectures**
 - **this will require**
 - **the development of significant instructional material for the institutions**
 - **Continuing monitoring of the institutions so that they don't go down the wrong track in their development of the videos**
 - » **Keep quality high**
 - » **Keep the technical level of the lectures, tuned to the appropriate audience**
 - » **No marketing videos etc. etc.**
 - **Put these on website as they become released by the institutions**
 - **Near the end of the calendar year, solicit 20 more institutions**

Business Plan (Big Picture) 2009

- **Possible new ideas**
 - **Developed a video series for high school students**
 - **Possibly have university students develop these videos**
 - **Some people are doing this already, or things like it**
 - **Can we do it better?**
 - **A committee could start in 2008 to address this issue and develop a strategy**
 - **Other ideas??**

Accounting of Funds Received

- **\$40K allocated for this project**
 - Funds sent to NH IEEE section
 - VP Education sends reimbursement form and receipts (for all expenditures) to Treasurer IEEE NH Section and it is reimbursed by check
- **As of 7 October 2007**

– Funded spent	\$36,405.72
– Other Funds allocated but not spent	<u>\$2,576.50</u>
– Total	\$38,982.22
– Reserve	\$1,017.78

Accounting of Funds Spent or Allocated

• <u>Spent</u>	
– Server	\$8,948.19
– Desktop Computer (Editing/Archiving)	\$3520.43
– Editing Software (Adobe Premier CS3)	\$781.97
– 4 Laptops	\$10,006.08
– Camtasia Software	\$1221.00
– 4 Camcorders	\$3,933.41
– 8 Web Cameras	\$1075.65
– Student Labor (@\$10.765 per hr)	\$5950.00
– Cabling, Books/Manuals/SW/Postage, etc	\$968.99
– <u>Total</u>	\$36,405.72
• <u>Committed</u>	
– Honoraria advance (2007) not paid	\$1500.00
– Student Labor (Support/Editing)	\$1076.50
– <u>Total</u>	\$2576.50
• <u>Grand Total (Spent or Committed)</u>	\$38,922.22
• <u>Present Reserve</u>	\$1,077.78

Business Plan - Assumptions

- **There are a lot of assumptions in the Business Plan**
- **I may be too optimistic as to the number of viewers in 2008**
- **Revenue projections are also very sensitive to:**
 - **The number of finished tutorials that are posted on the web site, and**
 - **When they get posted on the web site**
 - **Pricing structure of Tutorials**
 - **My philosophy is to keep the price low to build up market share**
- **“YGIAGAM” Your Guess is as Good as Mine**

Business Plan (Course Development)

	2007	2008	2009	2010
No Tutorials Developed in yr	3	10	12	14
Cum # Tutorials in Library mid yr	3	7	19	26
No Courses Developed in yr	0	1	2	2
Cum # Courses in Library mid yr	0	1	2	4
No Student Lectures Developed in yr	3	9	20	20
Cum # Student Lectures in Library mid yr	0	7	25	45

Business Plan (Fixed Costs)

	2007	2008	2009	2010
Fixed Costs				
Server Leader		\$7,000	\$8,000	\$9,000
Student Dev Support		\$6,000	\$7,000	\$8,000
Server HW		\$5,000	\$5,000	\$5,000
Laptops etc		\$10,000	\$1,200	\$12,000
SW License		\$1,000	\$1,100	\$1,200
Student Editing Support		\$2,000	\$2,500	\$3,500
Other Support		\$2,500	\$3,000	\$3,500
Total Fixed Costs		\$33,500	\$38,600	43,200

Business Plan (Production Costs)

	2007	2008	2009	2010
Cost each Tutorial	\$500	\$500	\$550	\$600
Cost each Course	\$2000	\$2,100	\$2,200	\$2,300
Cost each Student Lecture		\$0	\$0	\$0
Total Prod Cost	\$1,500	\$7,100	\$9,900	\$10,600
Credit Card Processing		\$584	\$1,061	\$1,695
Total Annual Expenses		\$41,184	\$49,561	\$55,495

Business Plan (Video Viewing Projections)

	2008	2009	2010
Paid Tutorial Viewings Members	50	100	125
Paid Tutorial Viewings Non-Members	25	45	65
Student Lectures viewed by Students	25	35	35
Student Lectures viewed by Members	15	25	50
Student Lectures viewed by Non-Members	10	10	20
Courses viewed by Members	10	15	25
Courses viewed by Non-Members	5	10	20
Courses viewed by Students	25	100	200


Business Plan (Fee Structure)

	Members	Non-Members	Student Members
Student Lecture Series	\$15	\$25	\$0
Tutorial rates	\$100	\$150	\$125
Course Rates	\$600	\$800	\$10

Business Plan (Bottom Line)

	2006 + 2007	2008	2009	2010
Total Annual Expenses	\$38,982 investment	\$41,184	\$49,561	\$55,495
Total Receipts from Videos	\$0	\$19,475	\$35,375	\$56,500
Receipts - Expenses	-\$38,982	- \$21,709	-\$14,186	\$1,005

Outline

- **A Word of Introduction**
- **Old Business**
 - **AESS Video Education Program**
 - **Review of Program Goals**
 - **Implementation Progress**
 - **Expansion of Tutorial Program**
 -  – **Geographically to into Europe**
 - **Broadening of Tutorial Topics**
 - **Partner ship with Ocean Engineering Society**
 - **Meeting in November IEEE BOD Video Education Sub-group in Boston, MA**
 - **Successes and Challenges**
- **New Business**
 - **Integration of Tutorial and Distinguished Lectures**
 - **Calendar Year 2007 \$\$\$ for Tutorial Expansion**

Tutorial Expansion to Europe

- **Chris Baker, University College London and Marina Ruggiero(AESS BOG) (I hope) will lead this effort**
 - **We need to get them laptops with Camtasia and web cams ASAP**
 - **Request \$10 K of funding this year for this expansion**
 - **Laptop, software, web cams, and tutorial advancement \$500/tutorial)**
- **Chris can work the European radar community**
- **Marina can work the European space community**
- **Initial Goal – 3 tutorials per year per laptop**

Broadening of Tutorial Topics

- I have focused on the radar community
- Focus needs to be broadened to
 - Guidance and Navigation
 - PLANS 2008 conference tutorials
 - John Weyrauch can be a great resource
 - Space systems (USA)
 - Systems of systems
 - Civil Sector – Air Traffic Control
 - Avionics
- Vince Socci, IEEE Binghamton Chapter Chair has volunteered to help with video education effort
 - I will be asking him to take the lead in this effort

Potential Partnership with IEEE Ocean Engineering Society

- **A Colleague of mine, Prof Christian de Moustier, at UNH, is the Editor of the IEEE Journal on Ocean Engineering and on the Ocean Engineering Society ADCom**
 - He is aware of the AESS Video Education Initiative and its cost relative to Expert Now
- **My counterpart on their Society, Liz Creed, contacted me to obtain information, that she could present to their ADCom (BOG) re video education in their society**
- **I gave her Video Tutorial Samples (the instruction Video and PPT presentations)**
- **Their ADCom meeting was the week of Oct 1st**
 - They may be interested in collaborating on server usage if they decide to embark on a similar initiative
 - They seemed quite interested at the time of the meeting
- **I will keep the BOB and Officers informed, as I hear from them and events unfold**

Video Education Sub-Meeting at IEEE BOD Meeting November 2007- Boston

- **The IEEE NJ people are knowledgeable of our initiative**
- **Their Video Education people have invited me to give a presentation at a sub committee meeting that will occur during the week in November at IEEE BOD meeting in Boston**
- **The subject of the sub committee meeting is video education**
- **I shall prepare an appropriate brief and present**
- **I shall keep the Officers informed and send them copies of my brief**

Outline

- **A Word of Introduction**
- **Old Business**
 - **AESS Video Education Program**
 - Review of Program Goals
 - Implementation Progress
 - Expansion of Tutorial Program
 - • **Successes and Challenges**
- **New Business**
 - **Integration of Tutorial and Distinguished Lectures**
 - **Calendar Year 2007 \$\$\$ for Tutorial Expansion**

Successes and Challenges (1)

- **We seem to have met all of our goals of this calendar year, with the following exceptions:**
 - **Tutorial progress has been slow in some cases**
 - **It is clear that getting technical material released in video form will be difficult, particularly from DOD contractors and FFRDC's (i.e. Lincoln Laboratory)**
 - **We should not let this difficulty, stop us from developing the educational videos**
 - **We need to just plain, that it will take longer than we expected initially to get the final product.**
 - **We are “breaking the code”. We know how to do it. It's just going to take a little longer to do each tutorial**

Successes and Challenges (2)

- **Some IEEE AESS BOG jobs are easy, and some take a lot more time**
- **VP Education job takes a lot of time!**
- **You have to stay on top of things, or the products that come out will be of poor technical quality, and/or poor video quality.**
- **The job is taking me about 8 to 10 hours per week, and I am barely keep up with it.**
 - **As processes are developed and matured, administrative help will alleviate this a little bit**
 - **Unfortunately, administrators will never be able to:**
 - **Find the best tutorial speakers, and convince them to record their tutorials**
 - **Cajole experts to develop video courses**
 - **Monitor/assure the technical quality of recorded videos after they are produced**
 - **These are tasks that technical experts and leaders (in the individual fields) need to do**

Outline

- **A Word of Introduction**
- **Old Business**
 - **AESS Video Education Program**
 - **Review of Program Goals**
 - **Implementation Progress**
 - **Expansion of Tutorial Program**
 - **Successes and Challenges**
- **New Business**
 - – **Integration of Tutorial and Distinguished Lectures**
 - **Calendar Year 2007 \$\$\$ for Tutorial Expansion**

Integration of Live Tutorial Series and Distinguished Lecturer Series

- **The tutorial series, managed by the VP Education, and the distinguished lecturer series managed by VP Technical Operations are markedly similar save the length of the lectures**
 - **Several individuals give both Tutorials, and Distinguished Lectures**
- **I suggest to the Board of Governors that we combine the management of these live, tutorials and lectures under one VP**
- **I believe that both the Distinguished Lecturers and those who lecture the Tutorial Series should be term appointments (suggestion - 3 years, with 1 possible renewal after a one year hiatus)**

Integration of Live Tutorial Series and Distinguished Lecturer Series

- Turnover of lecturers would catalyze the development and showcasing of more, younger talent in the community and broaden the offerings of this important program
- Appointment should be via the process that Jim Hubble developed
 - Before people are appointed, they should submit electronically or hard copy of their resumes and copies of their presentations, to the board, for approval by a panel of BOG experts in their field
- All present appointees should go through this reappointment process and be given staggered terms of appointment.
- Several of our distinguished lecturers are not, or rarely, asked to give lectures, why ??

Request for Funds to Immediately Initiate European Expansion and Topic Expansion

- **I request \$20 K to immediately initiate the European expansion and topic expansion of the tutorial video education program**
 - **Funds would be expended before end of CY 2007**
- **The funds would be used to purchase the additional laptops, Camtasia licenses, web cams, etc.**
- **Discussion and then a motion, to allocate the funds for the above expansion would be appreciated**

Summary

- **The Video Education Program is progressing solidly but somewhat slower than I expected**
 - We met all of our major goals this year
 - In hindsight, I should have expected that the noted issues would make progress a little slower than initially anticipated
- **If things proceed well over the next year or so, the BOG may wish to start an video initiative aimed at motivating High School students into our profession**
- **IEEE “Central” and other IEEE Societies are quite interested in our video education program**
- **You need to have in place, soon, a replacement, who I can teach the “tricks of the trade” over the next year**
 - Job requirements noted earlier in talk

Backup Viewgraphs

- How do we want to use camcorders?

Location of Major Equipment

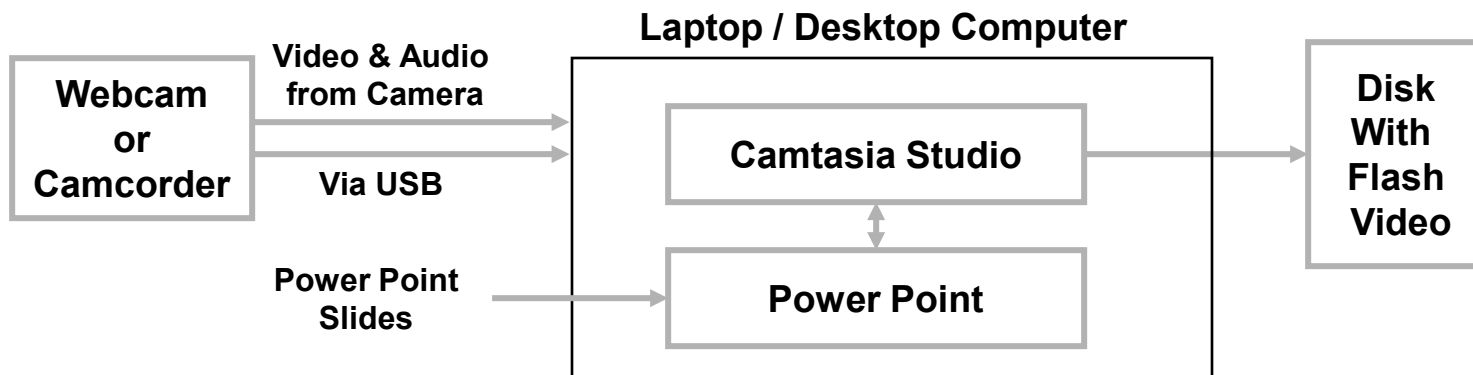
- **Laptop #1 - Bob O'Donnell – Radar Course, “on Loan”**
- **Laptop #2 - Bob O'Donnell – Ready for Loan**
- **Laptop #3 - Steve Watkins**
- **Laptop #4 - Dimitris Manolikis - “on Loan”, DSP Course**
- **Editing / Archiving Desktop - UNH Video Laboratory**
- **Server - UNH Video Laboratory**
- **Sony Camcorder DCR- HC38 - Bob O'Donnell**
- **Sony Camcorder DCR- HC38 - Bob O'Donnell**
- **Sony Camcorder DCR- HC96 - Bob O'Donnell**
- **Sony Camcorder HDR- HC38 - Bob O'Donnell**

Review of Enabling Technologies

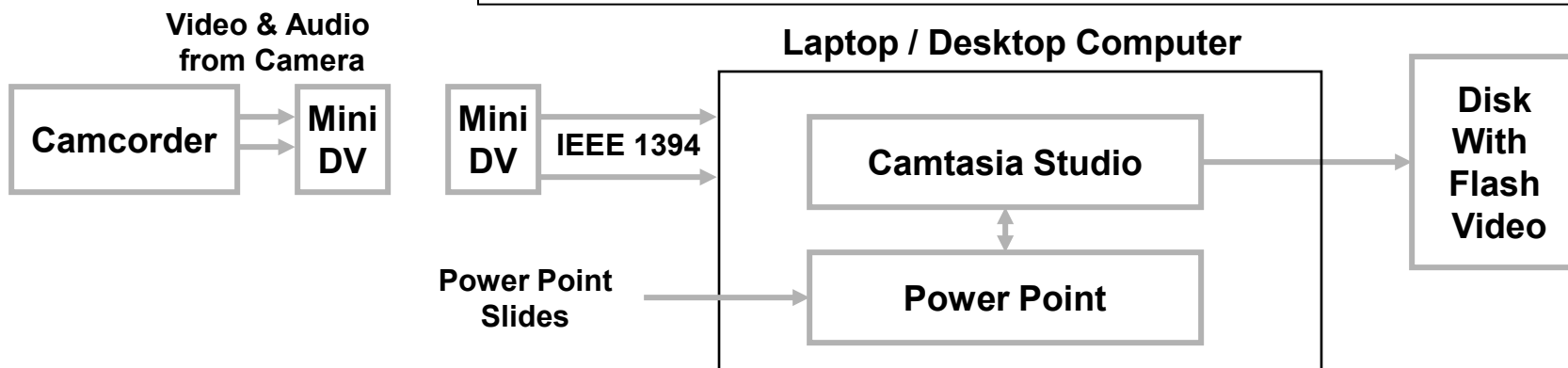
- **Inexpensive web cam and camcorders with high resolution**
 - **Web Cam** **\$100**
 - **High quality camcorder** **\$300-\$1200**
 - **Camtasia Studio software** **\$350**
 - **Laptop (~2.5Ghz processor, >1 GB RAM) \$2700 each**
 - ~2.5Ghz processor, >1 GB RAM, 80 GB Disk - 7200 RPM
 - Later versions of Camtasia may require more computer speed and memory
- **Camtasia - Mature software which simultaneously integrates:**
 - **Power Point screen capture (and mouse pointer)**
 - **Input to computer of digital streaming video and audio of the speaker**
 - **User friendly, flexible, “non-linear” editing and production of combined images in one screen**

Block Diagram of Video System

Option 1 - Integrated Recording



Option 2 - Record Video & Audio – Integrate Slides Later



What the Toys Look Like

Sony Camcorder



Logitech Web Cam



- 1.3 Million pixels
800 x 640 image
15/sec
- Rather simple optics
- Good for small studio work
- microphone included
- Cost (<\$100)

Initiate video technical seminar series for EE students

- **Modeled after Lincoln Laboratory technical seminar series**
 - **See Booklet being Passed Around Meeting**
 - **Forty five minute technical seminars**
 - **Significant introductory material in each seminar which sets the stage and motivates the student**
 - **These are not marketing seminars, no overt recruiting, no music!**
 - **Understandable by freshman, but will not bore first-year graduate students**
 - **Ideally, at the end of the lecture, the student would say**
 - **“that’s neat work! I’d love to have worked on that project”**
- **Lectures will be video recorded and placed on AESS Website for use by IEEE student chapters, free of charge, at their weekly chapter meetings**
 - **Password assessable**
 - **Could also be made available to regular members at low cost**

Initiate video technical seminar series for students

- **Initial goal**
 - Eight to ten seminars on line within a year
 - Use already developed video capability to record seminars
 - Beta-test with a couple of the Lincoln Laboratory technical seminars
 - Get buy-in from industry and universities
 - Raytheon, BAE, Lockheed, Northrop, Boeing, JHU/APL, GTRI, MIT/LL, Draper Laboratory,
 - European corporate and universities (ESSA)
 - Developed and network through Aerospace industries Association, Technical Council
 - University electrical engineering departments
- **Long-term goal**
 - Library of 50 – 100 seminars online at any one time
 - No more than five lectures from any one institution
 - Rotate five to 10 off web-based library each year

Initiate video technical seminar series for students

- **Additional ground rules**
 - **IEEE/AESS committee, which reviews all of these videos**
 - Video and audio quality
 - Well matched to student technical level
 - Not boring
 - Strongly motivating
 - Not overtly marketing or recruiting oriented
 - Seminars should use the video and recording equipment and output format that we specify for the sake of uniformity
 - We will lend any equipment that a corporation or university does not possess
 - **This committee needs to have the clout to reject any offending video or send it back for corrective action**
 - **These ground rules need to be stated clearly and explicitly upfront**
 - the program could degenerate quickly, if quality is lacking

Initiate video technical seminar series for students

- **For the time being, I will be happy to be overall chair this committee for the next year, as we set things up**
- **A number of sub-committees required dealing with:**
 - **Developing Technical seminar topics and speakers**
 - **Excellent “community” networking skills and experience required**
 - **Will be dealing with Corporate / University management**
 - **Technical quality**
 - **Excellent pedagogical and technical credentials required**
 - **Develop Server and Web Infrastructure**
 - **Hopefully with Comm. Society**
 - **Equipment and administration**
 - **Mailing of equipment**
 - **Keeping track of equipment**
 - **Disbursement of funds**

Lending of web cam and laptop equipment

- **Propose two centers for equipment - initially**
 - University of Missouri Rolla
 - University of New Hampshire / Lincoln Laboratory
 - Sites on West Coast & in Europe as need develops
 - Late 2007
- **Need to develop an optimized approach to recording videos**
 - How much real-time at conferences?
 - How much off line at lecturer's home/office?
- **Again, a Committee is needed to deal with this issue for both the tutorial program and the student seminar program**
 - Mailing of equipment
 - Keeping track of equipment
 - etc.

Program Plan

- **Negotiate use of Communications Society Server**
 - In process
- **Develop web ware for a server**
 - GTRI / Communications society / UNH / UMR
- **UNH students modifying Communications Society Operations Manual**
 - Audio -> Audio + Video
 - Camtasia Studio 3.0 to 4.0
 - Making More User Friendly
 - UMR will collaborate in this task
- **Set up committees**
- **When baseline capability is present advertise in media**
 - Systems Magazine
 - AESS conferences
 - Send out a mailer to members and electrical engineering departments
 - Use AESS conference mailing lists

Budget Projections

- **Calendar year 2007**
 - Use \$10 K remainder of 2006 \$20K Grant
 - Up to now approach has been “build a little, test a little”
 - These \$\$ will be used to procure UMR equipment
 - Additional \$15 - 20K of 2007 Funds (**\$20K approved**)
 - Web Software & integrate to Comm. Society website
 - Additional Computer and Video Equipment
 - \$500 per tutorial advance
 - **Proceeded via another route see below**
 - **Server Costs**
 - Use of Communications Society server costs ??K
 - Low cost approach
 - Find another server to use (**Developed IEEE AESS Server and infrastructure at UNH, up and running off line now, online in a month or so**)
 - Cost TBD(**Server cost was \$20K (HW + SW)**)
- **Calendar year 2008**
 - **\$5-10K (\$ 56K now budgeted after May BOG mtg)**

Committees

- **Tutorial Initiative - Steve Watkins – Overall Chair**
 - Topic Committee to Identify & Designate Tutorial Speakers
 - Chair- (Iram Weinstein)
 - 3-4 additional members - TBD
- **Student Technical Series Chair – Bob O’Donnell – Overall Chair**
 - Deputies – Dr Randall Seed/ Dr Nick Pulsone - MIT LL
 - Topic Committee to Identify & Develop Lecture Speaker
 - Chair- 3-4 additional members – TBD
- **Technical and Video Quality Committee (for Tutorials & Technical Series)**
 - Chair- (Joe Guerci)
 - 3 additional members – TBD
- **Committee to Develop Server and Web Infrastructure with Comm. Society**
 - Chair (Iram Weinstein)
 - 2-3 additional members – TBD (talent with web development experience)
- **Equipment Committee – O’Donnell / Watkins**
 - Members at each location to mail (&receive back) equipment / contracts/ etc TBD
 - Add Europe and West Coast centers

Summary

- **This initiative has the potential to invigorate our society's education mission and positively effect society membership**
- **Request Concurrence/Guidance from BOG on Initiative and Funding for 2007**
- **Committee Chairs and members need to be identified, solicited, and filled**
 - **Will be requesting help from Radar Systems Panel at their meeting this evening**
 - **Need help in soliciting members, etc. in other technical areas**
- **As the initiative grows propagate to other societies**
 - **Pursue IEEE New Initiative funding for this growth**