
*Tentative Agenda: UIA Medical Meeting on May 19, 2003
New York Helmsley Hotel, NY, NY*

Co-Chairmen

*Morning Session: Jeffrey J. Vaitekunas
Afternoon Session: Alan A. Winder*

07:30-08:30 AM	Continental Breakfast Registration
08:30-09:30	Atraumatic Surgical Interventions Using Ultrasound, A Little Theory, A Little Practice, Guest Speaker, Dr. Michael Young, SRA Developments Ltd
09:30-10:00	Phantoms & Simulations for Characterization of Therapeutic Ultrasound Fields, Samuel M. Howard, Onda Corp.
10:00-10:30	Simulations of Ultrasonic Standing Waves for Therapeutic Applications, S. Howard, C. Zanelli, Onda Corporation; K. Ohashi, Corazon, Inc.
10:30-11:00	Coffee Break/Networking
11:00-11:30	Determination of Sensitivity vs. Frequency Characteristics of Miniature Ultrasonic Hydrophones below 1-MHz using Planar Scanning Technique, Vadivel Devaraju, Drexel University
11:30-12:00	A Novel Approach to Designing Low Frequency Transducers: Porous Piezoelectric Ceramics with 3-0 Connectivity, Bahram Jadidian and Alan Winder, J&W Medical LLC
12:00-01:00PM	Lunch
01:00-02:00	Novel Ultrasound Approaches: Elastography, Guest Speaker, Dr. Christopher Merritt, Thomas Jefferson University Hospital
02:00-02:30	Studying Tissue Dynamics by Harmonic Vibrations, Mostafa Fatemi, Mayo Clinic and Foundation, Rochester, MN 55905
02:30-03:15	Coffee Break/Networking
03:15-03:45	Prostate Ultrasound: Contrast-Enhanced Transrectal Ultrasonography of a Novel Canine Prostate Cancer Model, Flemming Forsberg et al, TJUH
03:45-04:15	Enhanced Ultrasound Diagnoses Through Specific Targeting, Margaret A. Wheatley, Drexel U.; Flemming Forsberg, Ji-Bin Liu, Dan Merton, TJUH; and Justin D. Lathia, Drexel U.
04:15-05:00	Protecting IP with Emphasis on Medical Technology, David Carter, Carter, DeLuca, Farrell, Schmidt

Fellow UIA'ers please mark your calendars and reserve September 22-24, 2003 for attending the Ultrasonic Industry Association's 33rd Annual Symposium.

It is only fitting that the 33rd Annual UIA Symposium take place in Indianapolis, Indiana, the site of the Indy 500 with its 33-car field. This exciting convention city, with its many attractions and revitalized downtown promises interests for all.

This year's Symposium will be held at Indiana University's University Place Conference Center and Hotel. Our program plan is for a 1/2 day session on High Power Ultrasound Applications, 1/2 day session on Industrial Applications of Ultrasound, a full day session on Ultrasonic Applications in Sonochemistry, and a 1/2 day session in Ultrasonic Medical Applications.

We are also planning to have optional tours of a piezo ceramic manufacturing facility and the medical facilities of Indiana University.

See you in Indianapolis!

Remember, September 22-24, 2003!

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UIA Medical Meeting Registration Form

Please print and complete all information. This information will be printed in the registration listing and on your name badge.

Name (circle one) Dr./Mr./Mrs./Ms. _____

Nickname _____ Title _____

Organization _____

Address _____

City _____ State _____ Zip _____

Country _____

Phone _____ Fax _____

E-mail _____

Member of (please check all that apply) UIA UTAG USS ASA EWI IEEE/UFFC

Do you need UIA Membership Information? Yes, send me more information (or sign up at www.ultrasonics.org).

Please list your job sector (i.e., industry, medical device, education) _____

Please list your area(s) of interest (i.e., laboratory, materials, sensing, etc.) _____

Please list any of your credentials _____

Registration Fees for UIA Medical Meeting

One Day Only Monday, May 19, 2003, New York Hemsley Hotel, NY, NY

UIA Member	<input type="checkbox"/> \$300	
Nonmember	<input type="checkbox"/> \$385*	
Half-Day Only	<input type="checkbox"/> \$195	<input type="checkbox"/> AM
Student/Retiree	<input type="checkbox"/> \$195	<input type="checkbox"/> PM
Presenter	<input type="checkbox"/> \$195	
TOTAL ENCLOSED	\$ _____	

*For an additional \$20, you will receive a one-year UIA membership (\$105 value)

Hotel Accommodations

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Discounted Guest Rates
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You are responsible for your own reservations.
Cut-off date for special rates is April 25, 2003.

Complete and mail or fax this form with payment to
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UIA's 32nd Annual Symposium in New York City

The Symposium was well received by our members and visitors, a truly international group. Our post-show evaluations were overwhelmingly positive on the quality and variety of papers presented and on the location in the heart of the city.

A full three day schedule included papers on scientific and medical applications, acoustics, material processing and joining technology. A historical note was added by a biographical review of two of the founding fathers of acoustics, Wood and Loomis, presented by Dr. Karl Graff of the Edison Welding Institute. An exhibit gallery showing products of ultrasonic manufacturers and service providers was open throughout the symposium.

The annual Procter and Gamble Award was presented to James D. Oxley of the University of Illinois, who presented the paper to attendees. Many thanks to all the students who competed for the P&G award with some very promising papers.

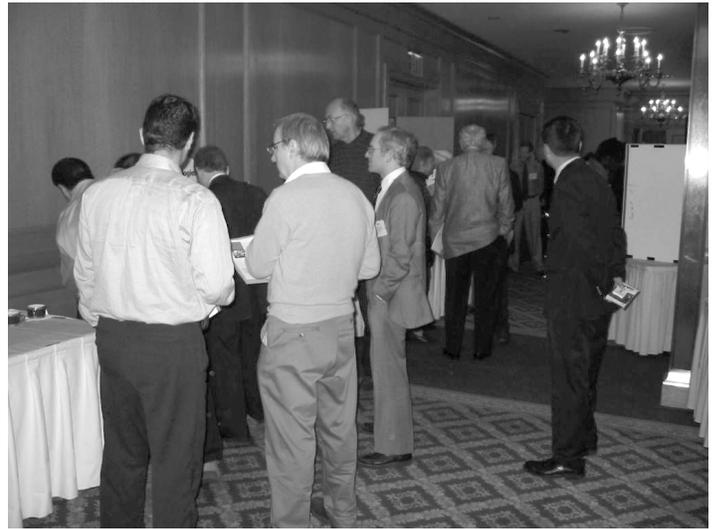
Jeff Vaitekunas was thanked for his hard work as UIA president for 2002 and Ron Manna was elected UIA president for 2003 during our annual business meeting. Other newly elected officers and board members are listed inside the back cover.

Many of our members took advantage of a long weekend to enjoy the sights and sounds of the "city that never sleeps" and the mood was upbeat and friendly. This was a meeting you should not have missed!

Many thanks to Ron Staut and Ron Manna for their hard work in organizing the symposium, and to the various committee members, presenters and attendees who combined to make this meeting a memorable event.



Symposium attendees give attention to new technologies.



Crowds gather in the exhibit hall.



Lunchtime conversation.



Susan Poniatowski addresses the symposium during the Sonically Enhanced Processing session.



Networking is a critical element of symposium attendance.



Procter and Gamble Graduate Research Award winner James Oxley is congratulated by President Jeff Vaitekunas (left) and Past President Mark Schafer (right).



George Bromfield discusses high-power transducer design.



There was plenty of food on the serving line.



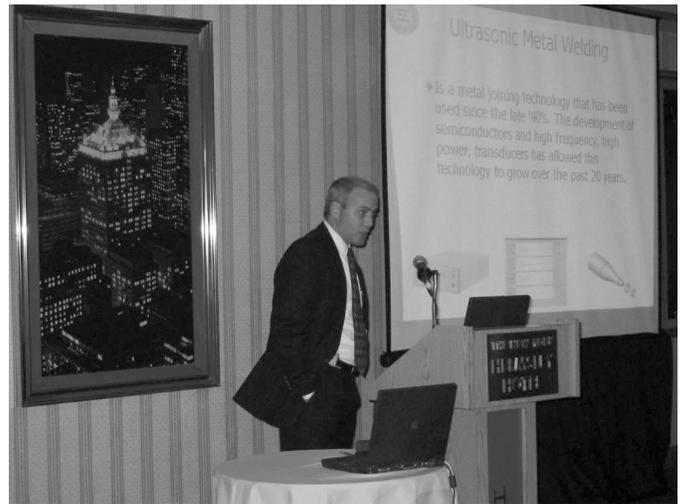
Business luncheon begins with....lunch.



Ralf Seip presented during the Medical and Standards Session.



Discussion groups form during the evening wine-and-cheese reception.



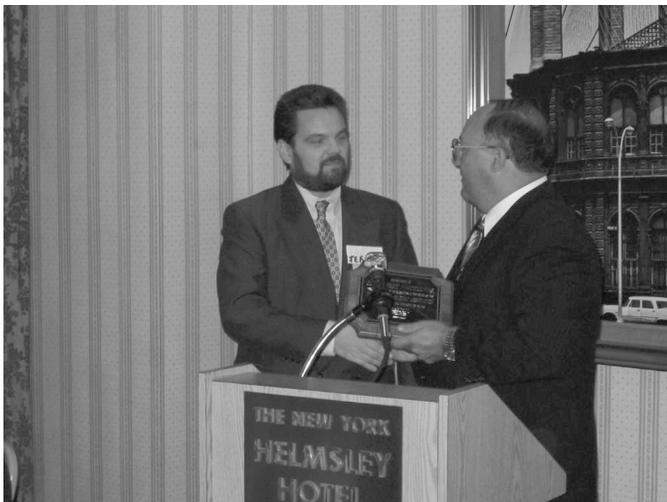
A presentation on ultrasonic metal welding by Joe Stacy.



Hands-on demonstration of ultrasonic peening of welds in steel plate.



Nothing brings a diverse group together like food.



Incoming President Ron Manna (right) presents outgoing President Jeff Vaitekunas a plaque honoring his service to UIA.



Karl Graff discusses the basics of ultrasonic plastics assembly during the seminar.



33rd Annual UIA Symposium

September 22-24, 2003

University Place Conference Center, Indianapolis, Indiana

Call for Papers

Deadline for submission: July 15, 2003

The Ultrasonic Industry Association, Inc. invites you to submit a 200 word abstract for consideration of presentation at the UIA's 33rd Annual Symposium.

Please check the appropriate category of your proposed presentation:

- Industrial Applications
 - NDE
 - Cleaning
 - Measurement
 - Components
 - Underwater
 - Pulp/Paper
 - Sensing
 - Atomization
- Sonically Enhanced Processing
 - Sonochemistry
 - Cleaning
 - Agglomeration
 - Separation
 - Environmental
 - Pharmaceutical
 - Sonoluminescence
 - Defoaming
 - Degassing
 - Compaction
- High Power
 - Metal and plastic joining & fastening
 - Welding Films, Fabrics, Metals, Plastics
 - Cutting
- Medical
 - Surgical/Therapeutic
 - Cavitation
 - High Intensity Focused Ultrasound
 - Biological Cell Disruption
- Lead a Workshop: _____

Please print clearly:

Presentation Title: _____

Authors: _____

Presenter(s): _____

Main Contact Name (Person to receive correspondence): _____

Address: _____

City/State/Zip: _____

Phone #: _____ Fax #: _____

Email: _____

Deadline: July 15, 2003 for submitting *Call for Papers Form*

Important Information: Presentations will be no longer than 25-30 minutes; final abstracts (diskette or Email) and bio-sketches must be submitted to UIA Headquarters no later than June 1, 2003. The session chair will contact you directly to discuss your proposed presentation. *Accepted presenters receive a discounted registration fee.*

Chairpersons: Ron Staut, APC International, Phone: (570) 726-6961, Fax: (570) 726-7466, Email: ronstaut@aol.com
Janet Devine, Sonobond, Phone: (610) 696-4710, Fax: (610) 692-0674, Email: jdevine@sonobondultrasonic.com

Ultrasonic Industry Association, Inc.

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Email: uia@ultrasonics.org

Web: www.ultrasonics.org



2003 UIA Medical Workshop

May 19, 2003

The Helmsley Hotel, New York, NY

Call for Papers

Deadline for submission: March 31, 2003

The purpose of the workshop is to provide a forum for an interactive discussion of the current status of medical ultrasound (US) for diagnostic and therapeutic applications. The topics include, but are not limited to, transducer/array design, fabrication and characterization, space-frequency diversity beamforming, modeling and simulation, and clinical applications utilizing HIFU and LIFU.

Similar workshops were held in 2000 and 2001 at the Taj Mahal Casino-Resort, Atlantic City, New Jersey as part of the Leading Edge Symposia (in Diagnostic Ultrasound), 2000-2001. The workshop consists of a series of invited papers and contributed papers focusing on, but not limited to, clinical applications of US elastography, atraumatic surgical intervention using US, the use of contrast-enhanced US for prostate imaging and the simulation and characterization of therapeutic US. The co-chairpersons for the workshop are Dr. Jeffrey J. Vaitekunas, Principal Scientist at Ethicon Endo-Surgery (Cincinnati, Ohio), for the morning session and Alan A. Winder, VP and Managing Director of J&W Medical LLC (Westport, CT), for the afternoon session.

Abstracts should be less than 300 words and concisely describe the objective of the work, the methodology used, and the results. The submitted abstract will be carefully reviewed and evaluated by a program committee to determine its suitability for presentation. Please direct inquiries and submit the abstract before March 31, 2003 to:

Alan Winder
J&W Medical LLC
56 Partrick Road
Westport, CT 06880
Phone: 203-226-0810
Fax: 203-226-4123
E-mail: a.winder@jwmed.com

The conference will be held at the Helmsley Hotel, New York City on May 19, 2003.

Report to the UIA Membership Regarding Standards Activity of Interest to Them

During August 2002 the INTERNATIONAL ELECTROTECHNICAL COMMISSION, TECHNICAL COMMITTEE No. 87: ULTRASONICS, met in Berlin, Germany. Below is the report from the Convenor of WORKING GROUP 3: HIGH POWER TRANSDUCERS, Alan Broadwin to the committee. It is hoped that sharing this information with you will increase your understanding of what is happening in the world of ultrasonic standards and increase your participation in the process.

DELEGATES

Attending the meeting:

Alan Broadwin	USA	broadwin@ainslie.com
Thomas Szabo	USA	tszabo@bu.edu
Prof. Eiji Mori	Japan	—
Koji Saito	Japan	k-saito@suzuka-u.ac.jp
Prof. Seiji Kaneko	Japan	Kaneko_seiji2000@yahoo.co.jp
Prof. Joachim Herbertz	Germany	ust@uni-duisburg.de
Martin Pessel	Germany	martin.pessel@schering.de
Stefan Bandelin	Germany	Stefan.bandelin@bandelin.com
Ernst Marlinghaus	Switzerland	marlinghaus@compuserve.com
Robert Bezemer	Netherlands	ra.bezemer@pg.tno.nl
Michael Halliwell	UK	mike.halliwell@bris.ac.uk
Bajram Zeqiri	UK	Bajram.zeqiri@npl.co.uk
Remy Baillif	IEC	rb@iec.ch

Members of Working Group 3 but not attending the meeting in Berlin

Dr. I.P. Golima	Russian Federation
Prof. V. F. Kazantsev	Russian Federation
Dr. Ioan Rugina	Romania
Dr. Mircea-Alexandru Sarbu	Romania
Prof. F. Zhou	China

Scope for WG 3 "To prepare standard measuring procedures for ultrasonic high power transducers."

Program of Work

87/61985/Ed. 1 Stage 1CD

Ultrasonics - Resonant Magnetostrictive Transducers - Measurement and Declaration of Characteristics and Performance Parameters.

Project Leader: Richard Paschke, USA

Mr. Paschke has generated a forth revision of the document that we originally started with. It incorporates the changes requested by the working group at our last meeting in London. The document has just been received by the group and thus they were not able to review the document in advance. Extended discussion on other topics, during this meeting, precluded our reviewing even the most basic changes in the document. However, everyone was pleased that progress had been made. The plan is as follows: In the next 3-6 months each of our members need to review the current document. Alan Broadwin will e-mail/mail copies to the members of the working group that were not able to attend the meeting in Berlin.

The following are the things which the working group should address and report back to the convenor for compilation and discussion with the project leader:

1. Are the parameters listed in the document appropriate? Are there too many, too few, the wrong ones?
2. Should we add a parameter relating to noise? Can we refer to any existing document which addresses a or c weight measurements?
3. Are all of the sections of the document necessary? Do they each add to the understanding of the reader and his/her ability to perform the measurements required?
4. Is there something missing in the document that needs to be added/addressed to make the document an appropriate working guide for the user?
5. Is the bibliography current and appropriate. The listing included in the document is from the original document and maybe neither current or relevant today. What are the references that the working group members suggest be included.

The responses should be grouped as listed above. The target is to have a CD available to be attached to a New Work Item Proposal by May 2003. The document is based on quantifiable parameters that can be made by manufacturers and does not address esoteric or laboratory measurements. It is hoped that in reviewing this document, the working group members will keep this goal in mind when they submit their comments and requests for changes.

87/PWI/4 Stage 0

Ultrasonics - Piezo-Ceramic Transducers-

Characteristics and Measurement Methods.

Project Leader: None at the moment

Dr. Karl Graff, who was the Project Leader has been unable to provide any changes to the last version of the document and has asked to be removed as Project Leader. The working group had a far ranging discussion about how to proceed with this project during our meeting. No one in WG3 seems to be willing to undertake this task.

Professor Mori is working very hard to provide us with the background and understanding of what should be included in the standard. He shared with the Working Group four excellent presentations. They are titled:

1. Practical and simply inspection method of vibration characteristics of a bolt-clamped piezoceramic transducer.
2. Measurement and calculation of vibration characteristics of a bolt clamped piezoceramic transducer. (A Type vibration based on electric field intensity)
3. Measurement and calculation of vibration characteristics of a bolt clamped piezoceramic transducer. (B Type vibration based on electric displacement)
4. Measuring method and calculations of vibrating characteristics of a bolt clamped piezoceramic transducer.

He hopes that whoever is the project leader can utilize these very well thought out and clear explanations.

Tom Szabo, convenor of WG6, participated in the WG3 meeting. He made a very strong presentation that his group has the expertise and interest in characterizing transducers as part of an overall model of these types of devices. Although the high power, Langevin type devices that are most familiar to WG 3 members are different in design than the diagnostic transducers that WG 6 has traditionally worked on, a similar model could be developed which would yield the same output parameters that are currently listed in the magnetostrictive and piezoceramic documents.

The discussion ranged from an enthusiastic response to the offer of help and input to a cautious questioning as to whether the differences in the two categories of devices might be so great as to not allow an appropriate document to come out of this kind of interchange of information and technology. *It is the opinion of the Convenor that this type of cooperative effort between two working groups (or a new combined working group) is more of an opportunity than a risk. I believe that a way should be developed to allow this to happen. It would reinforce the already existing interactions of the people in the working groups involved and should expand the pool of qualified and interested technical experts who can do the job. Short of this type of dramatic action, we may be forced to abandon work on this project and leave the old and outdated document that now exists, in place.*

When people read these minutes, they are encouraged to provide inputs and support for either a new initiative or a continuation of the current effort with a new Project Leader. The discussion at this meeting was not concluded with a specific recommendation other than that Tom Szabo and his group would study the existing documents and see if they can make a proposal as to how they might address the problem from their vantage point. A report of their findings and possibly a

proposal for joint work would then be expected at the next meeting of TC 87.

87/PWI/5 Stage 0

Ultrasonics - Cleaning Systems - Operating Parameters

and Acoustic Field Measurements. (Revision of 60886)

Project Leader:

Bajram Zeqiri, UK

Mr. Zeqiri gave us an update on his progress on this project. He has developed an excellent method to look at cavitation activity and its distribution in the baths. He is getting a better understanding of what parameters are the key ones to describe these devices. As part of this effort he has promised to communicate his current (not finalized) list of factors that he feels will be important in characterizing cleaning systems. He has come to the conclusion, endorsed by the working group, that his document **will not address cleaning effectiveness** since this is so dependant on the item to be cleaned that its inclusion in the document will almost certainly lead to failure.

Detailed information about his experiments and inputs to date are available in the reports he has published through NPL. People who want to receive this information should contact Mr. Zeqiri since they provide a very complete and illuminating explanation of what he is doing.

Robert Bezemer of TNO reported on his work in determining what is "Clean" and trying to develop some standard "dirt". Their efforts were focused on the medical market where ultrasonic cleaners are used as part of the sequence of steps needed decontaminate (clean) instruments prior to sterilization. They are not evaluating if an ultrasonic system with or without chemical additives can "sterilize" instruments. He provided the group with a summary of his published report which sheds additional light on this very complex problem. It was good to see that he is continuing his contacts and collaboration with Bajram Zeqiri in studying this process.

Stefan Bandelin was encouraged to possibly provide samples of his cleaners having both pzt and magnetostrictive transducers so that they might be evaluated, side by side to see if there were noticeable differences in their ability to provide uniform cavitation fields or effective cleaning.

I repeat a note that was included from a previous meeting of TC 87 that records the continuing interest in this technical area as it applies to its use to improve the effectiveness of sterilization of medical instruments.

"The TC 87 Secretary reports that IEC TC 104 has withdrawn their 60653 standard: General Consideration of Ultrasonic Cleaning and replaced it with a cross reference in their data base to IEC 60886 so that continuity to the appropriate IEC committee can be maintained.

In addition, CEN TC 102: Sterilizers for Medical Purposes (an ISO related group) has asked for help from TNO."

There being no other business the meeting was adjourned.

Report submitted by Alan Broadwin, USA

President's Letter

To All UIA Members,

This is the first opportunity I have had to communicate with the entire membership of the UIA since being elected President last October. Please allow me to offer a belated Thank You for the opportunity to serve the group in this capacity. Be assured that the Board of Directors and I will do our best to make membership in the organization a rewarding and beneficial experience. With that in mind, the UIA is undertaking the planning of some very interesting projects and programs for this calendar year.

The first is our Third Annual one day Power Ultrasound in Medicine Seminar and Workshop, scheduled for May 19. The venue this year is the Helmsley Hotel in New York City, the same facility in which we held the 2002 UIA Symposium. The city has easy access from all points on the globe and the hotel itself offers a comfortable environment for our type of meetings. Our Seminar Co-Chairs, Alan Winder and Jeff Vaitekunas have arranged for a very interesting and informative program, with the promise of even more relevant and cutting edge papers to be added. See the preliminary program elsewhere in this issue of Vibrations.

Our annual UIA Symposium will be held this year in the city of Indianapolis, Indiana in September, on the grounds of the University of Indiana. The central location of the city and its proximity to Detroit, Chicago, Cincinnati and other Mid West locations, as well as the relatively low air travel costs from the East and West should make it ideal to allow members to join us in these times of limited travel budgets. In conjunction with the Symposium, we will be featuring day trips to piezoelectric crystal manufacturing sites as well as tours of relevant UI campus labs. Preliminary details of the planned

highlights are to be found in this issue of Vibrations also. Don't miss out on these two great networking opportunities.

A website review and rework is being planned. Our Member Directory will be updated and freshened to be even more user friendly and valuable. We are seeking to forge synergistic relationships with organizations and industries outside of our traditional sphere to bring added networking and information sources. Plans and updates on all of our efforts will be published in future Vibration editions as the situation warrants.

Although the Board Members are working hard for you and the group, I would remind you this is YOUR organization. Please take the time to contact us and tell us your thoughts of how the group can best serve you, whether it be Symposium Topics, Membership Benefit programs, ideas for better communication with the Membership or any other subject which might be on your mind. If you would like to volunteer your services on one of our committees or even as a new Board Member, you are encouraged and invited to do so.

The best salesperson for our Association is you, our loyal member. Please introduce the UIA to colleagues, clients, customers and friends and encourage them to join. A larger universe of members can only be of benefit in allowing the UIA to fulfill its vision to be to be the ultimate forum for manufacturers, users, and researchers in ultrasonic technology. The increase in revenue will be immediately reinvested in bringing you even more programs and member benefits in the future.

In closing, I wish all UIA Members and friends a happy, healthy and prosperous 2003. Again, Thank You for the opportunity to serve.

Ronald R. Manna
President UIA

UIA Sustaining Members

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UIA 33rd Annual Symposium

Graduate Research Award

The Ultrasonic Industry Association (UIA) is pleased to announce that a Graduate Research Award will be presented at the 33rd UIA Symposium on September 22–24, 2003 at University Place Conference Center, Indianapolis, Indiana. The Graduate Research Award recognizes excellence in graduate studies in the science and technologies of interest to the Ultrasonic Industry Association. The award consists of a **\$1,500 cash prize and a plaque**.

Eligibility

- Applicant must be a full-time graduate student in an academic institution.
- Applicant research topic must be in the field of ultrasonic applications (i.e. cleaning, sonochemistry, welding, medical, etc.)
- Applicant must be working on a research dissertation at the M.S. or Ph.D. level.

How to Enter?

- Send the following information to the address below:
 - A title page including:
 - Title of research topic
 - Your Name
 - Topic or Title of Paper
 - Complete mailing address
 - Telephone and Fax numbers & Email address.
 - A description of the graduate study (maximum 1 page).
 - Attach a resume including list of publications (maximum 3 pages).
- An official university transcript or letter of support from Department Chair.
 - Any other supporting information (maximum 5 pages).

Selection Process

The Board of Directors of the UIA will select the winner using the following criteria: description of the research topic and its relevance to the UIA interest areas and the academic excellence of the applicant.

Announcement

The award recipient will be notified by August 1, 2003. The award will be made at the 33rd UIA Annual Symposium at University Place Conference Center, Indianapolis, Indiana. The recipient will be invited to present his/her paper at the Annual Meeting of the UIA when the award will be presented. The winner may also invite a couple of significant family members, too.

Deadline

Your application must be received no later than July 15, 2003.

Send Applications to:

Ultrasonic Industry Association, Inc.

c/o Seth Hettinger, 1111 N. Dunlap Ave., Savoy, IL 61874

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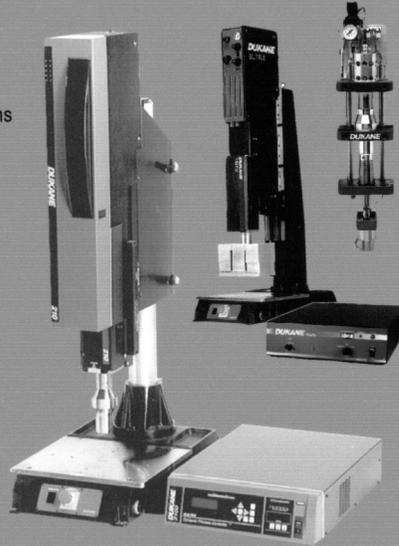
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