

**THE FIBER SOCIETY  
FALL - 1999 ANNUAL TECHNICAL CONFERENCE  
OCTOBER 20 - 22, 1999  
MADREN CENTER  
CLEMSON UNIVERSITY, CLEMSON, S. C.**

**Tuesday - October 19, 1999**

4:00 - 600 PM      Registration/Reception - Madren Center

**Wednesday - October 20, 1999**

7:30 AM              Registration

8:30 AM              Opening Remarks

Dr. Thomas Keinath, Dean, College of Engr. and Science

Dr. Mary Toney, President, Fiber Society

Dr. Bhuvanesh C. Goswami, Conf. Chair

**SESSION I: Structure Development in Fibers I**

Chair For The Day: Dr. Richard Gregory, *School of Textiles, Fiber & Polymer Science*

Session Moderator: Prashant Desai, *Fibervision*

**8:45 AM**      EFFECTS OF DENIER AND ORIENTATION VARIATION ON PROPERTIES  
AND PROCESSING PERFORMANCE OF MELT-SPUN FIBERS

*D.R. Gregory, Eastman Chemical Co.*

**9:30 AM**      SHEAR AND ELONGATIONAL VISCOSITY CHARACTERIZATION OF MELT  
BLOWING AND EXTRUSION GRADE POLYPROPYLENES

*S. Petrovan, J.R. Collier, Univ. of Tennessee*

**10:10 - 10:30 AM**      **BREAK**

**10:30 AM**      PREDICTION OF MECHANICAL AND OPTICAL PROPERTIES OF  
RUBBERY FILAMENTS: ROLE OF PRIMARY POLYMER STRUCTURE

*H. Nanavati, P. Desai, A.S. Abhiraman, Georgia Institute of Tech.*

**11:10 AM**      CHAOTIC MIXING OF THERMOPLASTIC MELTS AS A MEANS TO  
PRODUCE SPUN FIBERS WITH INTERNAL REINFORCEMENTS

*B.L. Gomillion, M.S. Ellison, Clemson University*

## **SESSION II: Structure Development in Fibers II**

Session Moderator: Donald H. Martin, *Solutia, Inc.*

**1:00 PM** STRUCTURE AND PROPERTIES OF POLYPROPYLENE POLYMERS IN A SPUNBONDING PROCESS

*G.S. Bhat, Univ. of Tennessee*

**1:40 PM** EVOLUTION OF STRUCTURE AND PROPERTIES IN MELT BLOWING

*K. Dorsey, P.Desai, A.S. Abhiraman, Georgia Institute of Tech.*

**2:20 PM** STRETCHING AND SLIPPING OF FIBERS ON ROLLERS

*S.E. Bechtel, S. Vohra, Ohio State Univ; K. Jacob, Georgia Inst.of Tech.*

**3:00 - 3:20 PM**        **BREAK**

**3:20 PM** FATIGUE FAILURE IN TECHNICAL POLYAMIDE 6-6 FIBERS

*I. Nasri, A. Lallam, ENSITM, Mulhouse; A.R. Bunsell, ENSM, Paris, France*

**4:00 PM** A THERMO-MECHANICAL INSTABILITY IN THE HIGH-RATE EXTENSION OF TEXTILE FIBERS

*T.A. Godfrey, U.S.Army Soldier & Biological Chem Command, Natick, MA*

**4:40 PM** CONJUGATED POLYMERIC ELECTRONICS AND PHOTONICS

*R.V. Gregory, Clemson Univ., Vally Vardeny, Univ. of Utah*

**5:20 PM**        **ANNUAL MEMBERSHIP BUSINESS MEETING**

**6:30 PM**        **RECEPTION**

**Thursday - October 21, 1999**

## **SESSION III: Measurement Techniques**

Chair For The Day:

Session Moderator:

**8:45 AM** PROTECTIVE MATERIALS BASED ON ELECTROSPUN NANOFIBER  
*SP. Gibson, H.Schreuder-Gibson, U.S.Army, Soldier Systems Center, Natick, MA*

**9:30 AM** A NEW PORTABLE FABRIC TO FABRIC FRICTION TESTER

*L. Hes, M. Lima, Univ. of Minho, Guimaraes, Portugal*

**10:05 AM** PREPARATION AND APPLIED PROPERTIES OF FLOUROCARBON COATED PET FABRICS AND FILMS BY R.F. SPUTTERING

**12:05 PM LUNCH**

**SESSION IV: Student Paper Competition**

Session Moderator: Julie Chen, U. Mass, Lowell

**2:15 - 2:35 PM BREAK**

**SESSION V: Processing Dynamics**

Session Moderator: Kermite Duckett, Univ. of Tennessee

**2:35 PM UNWINDING REVISITED**

*W.B. Fraser, Univ. of Sydney, Australia*

**3:10 PM SYMMETRY IN TEXTILE STRUCTURES: REVISITING MECHANICS OF YARNS AND NONWOVEN FABRICS**

*V. Sharma, H. Kim, B. Pourdeyhimi, P. Desai, A.S. Abhiraman, Georgia Institute of Tech*

**3:45 PM BULK TESTING AND CONTROL FOR BULKED CONTINUOUS FILAMENT YARN**

*C. Qiliang, C. Ming, China Textile Univ., P.R.C.*

**4:30 - 6:30 PM POSTER SESSION**

**7:30 PM BANQUET AND AWARDS CEREMONY**

**AWARD OF HONORARY MEMBERSHIP TO:**

Ernest R. Kaswell

Bhuvanesh C. Goswami

**DISTINGUISHED ACHIEVEMENT AWARD:**

Gajanan Bhat

**Friday, October 22, 1999**

**SESSION VI: Fibrous Structural Behavior**

Chair For The Day: *Behnam Pourdeyhimi, NC State University*

Session Moderator: *Thomas Y. Tam, Allied Signal, Inc*

**8:30 AM A NOVEL TECHNIQUE FOR ASSESSING THE FRICTIONAL**

**10:20 AM** PREDICTION OF STRESS-STRAIN BEHAVIOR OF WOVEN FABRICS BY USING THE FINITE ELEMENT METHOD

*M. Tarfaoui, J.Y. Drean, S. Akesbi, ENSITM, Mulhouse, France*

**10:50 AM** AN OBLIQUE FIBER BUNDLE TEST AND ANALYSIS

*N. Pan, Y. Lin, Univ. of California, Davis; X. Wang, Deakin Univ., Australia; R. Postle, Univ. of New South Wales, Australia*

**11:25 AM** MECHANICAL STRENGTH AND CELLULOSE MOLECULAR WEIGHT OF DURABLE PRESS FINISHED COTTON FABRIC

*C.Q. Yang, Univ. of Georgia; G.C. Lickfield, Clemson Univ.*

**11:55 AM** KNITTING DYNAMICS, DEVELOPMENT OF A DEVICE TO MONITOR KNITTING FORCES EXPERIENCED BY INDIVIDUAL SINKERS OF RELATIVE KNITTING TECHNIQUE

*M. Abou-iiiana, Philadelphia College of Textiles & Science; T. Little and A. Seyam, NC State University*

**12:30 PM**

**ADJOURN**

**FOR ADDITIONAL INFORMATION about any aspect of the Fall '99 Conference,  
contact:**

Dr. Bhuvanesh C. Goswami, Chair

[gbhuvan@clemson.edu](mailto:gbhuvan@clemson.edu)

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**FOR POSTER PRESENTATIONS**

**CONTACT:**

Dr. Mike Ellison

[ellisom@clemson.edu](mailto:ellisom@clemson.edu)

**HOTEL INFORMATION**

The Conference Hotel will be the:

James F. Martin Inn at the Madren Center \$ 79.00

Phone: 1-864-654-9020

Other hotels listed below are nearby. We will provide a shuttle service, morning, noon and evenings from these locations. You may call the hotel directly to make your reservations.

Holiday Inn \$ 59.00

Phone: 1-864-654-4450

Hampton Inn\* \$ 50.00

Phone: 1-864-653-7744

Days Inn\* \$ 48.00

Phone: 1-864-653-4411

\* Newer Motels

Room Rates are for single or double.

Please refer to the "Fiber Society Conference" when making reservations.

## **THE FIBER SOCIETY**

Mary M. Toney *President*

Preston Sasser *Vice President*

Bhuvnesh C. Goswami *Secretary/Treasurer*

THE FIBER SOCIETY

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[HTTP://FIBERSOC.TFE.GATECH.EDU/FIBER\\_MEMBER.HTML](http://fibersoc.tfe.gatech.edu/fiber_member.html)

FALL - 1999

TECHNICAL CONFERENCE

October 20 - 22, 1999

THE MADREN CENTER

CLEMSON UNIVERSITY

CLEMSON, SOUTH CAROLINA

Sponsored by:

School of Textiles, Fiber & Polymer Science

College of Engineering & Science

Clemson University

161 Sarrine Hall

Clemson, South Carolina 29634-5971

**FUTURE FIBER SOCIETY MEETINGS:**

**SPRING 2000 ANNUAL TECHNICAL CONFERENCE  
SUSTAINABILITY/RECYCLING OF TEXTILES**

May 17 - 19, 2000

University of Minho

Guimaraes, Portugal

in

Collaboration with

ENSITM, Mulhouse, France

Contact: Prof. Fernando Nunes Fureira

EMAIL: [fnunes@eng.uminho.pt](mailto:fnunes@eng.uminho.pt)

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and

Bhuvanesh C. Goswami

EMAIL: [gbhuvan@clemson.edu](mailto:gbhuvan@clemson.edu)

**FALL 2000 ANNUAL TECHNICAL CONFERENCE**

November 6 - 8, 2000

Callaway Gardens, Pine Mountain, Georgia

Georgia Institute of Technology

Contact: Dr. Steve Michielsen &

Dr. Mary Lynn Realf

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