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<b>OBJECTIVE</b>	<b>To secure a challenging position as an R&amp;D scientist.</b>
<b>EDUCATION</b>	<b>Ph.D., Physics</b> , May 2001 (GPA 4.0/4.0) <i>Kent State University</i> , Department of Physics, Kent, OH 44242 <b>Diploma, CMP</b> , Aug. 1996 (First rank with letter grade A) <i>ICTP</i> , Condensed Matter Physics (CMP) Group, Trieste, Italy <b>M.Sc., Physics</b> , May 1991 (Second rank with first class) <i>Tribhuvan University</i> , Central Department of Physics, Kathmandu, Nepal <b>B.Sc., Physics, Minor: Statistics</b> , June 1988 (First rank with distinction) <i>Tribhuvan University</i> , Trichandra College, Kathmandu, Nepal
<b>RELATED EXPERIENCE</b>	<b>Research Associate</b> , March 2000 – present <i>Kent State University</i> , Department of Physics, Kent, OH 44242 <ul style="list-style-type: none"><li>• Study and develop phase separated composite organic film (PSCOF) technology for fabrication of flexible reflective liquid crystal displays.</li></ul> <b>Research Assistant</b> , Aug. 1997 – March 2000 <i>Kent State University</i> , Department of Physics, Kent, OH 44242 <ul style="list-style-type: none"><li>• Studied liquid crystal alignment layers prepared by rubbing and non-rubbing techniques to correlate the surface properties and liquid crystal anchoring.</li><li>• Developed material independent method to study liquid crystal anchoring properties on rubbed polyimide surfaces.</li><li>• Developed and characterized new technique for photo alignment of LCs.</li></ul>
<b>OTHER WORK EXPERIENCE</b>	<b>Teaching Assistant</b> , Sept. 1996 – Aug. 1997 <i>Kent State University</i> , Department of Physics, Kent, OH 44242 <ul style="list-style-type: none"><li>• Assisted in teaching, monitoring and grading undergraduate physics students.</li></ul> <b>Visiting Scientist</b> , Oct. 1995 – Aug. 1996 <i>International Center for Theoretical Physics (ICTP)</i> , Trieste, Italy <ul style="list-style-type: none"><li>• Participated in Diploma Course in condensed matter physics.</li><li>• Conducted computational research in avoided crossings and non-adiabatic quantum dynamics in modulated double well potentials.</li></ul> <b>Lecturer</b> , May 1991 – Sept. 1995 <i>Tribhuvan University</i> , Kathmandu, Nepal <ul style="list-style-type: none"><li>• Taught all levels of undergraduate physics courses and laboratories.</li><li>• Supervised, assisted and evaluated undergraduate physics students.</li></ul>
<b>TECHNICAL SKILLS</b>	<ul style="list-style-type: none"><li>• Photo alignment of LC and UV-induced LC-polymer phase separation.</li><li>• Characterization of alignment layers by x-ray reflectivity &amp; optical retardation.</li><li>• Hands-on experience in glass and plastic LC cell fabrication in clean room environment including photolithography.</li><li>• Electro-optical characterization of LC cells.</li><li>• Programming and computer interfacing experiments and data acquisition.</li></ul>
<b>AWARDS</b>	<ul style="list-style-type: none"><li>• <b>Outstanding Academic Achievement (1997, 1998, 1999, 2000)</b> <i>Kent State University &amp; Phi Beta Delta</i>, Kent, OH 44242</li><li>• <b>One year fellowship (1995)</b> <i>ICTP</i>, Trieste, Italy</li><li>• <b>Mahendra Bidhya Bhusan Ga (1991)</b> His Majesty King of Nepal</li><li>• <b>Birendra Aishorya Schola. (1989-1991)</b> His Majesty's Government of Nepal</li><li>• <b>Intelligent student award (1987-1988)</b> <i>Tribhuvan University</i>, Nepal</li></ul>

## COMPUTER SKILLS

- Operating systems: Unix, Linux, Windows, DOS
- Languages: C, C++, HTML, Visual Basic
- Software: Mathematica, Sigma Plot, C-Plot, LaTeX, Applix, MS Office.

## PUBLICATIONS

**B. R. Acharya**, D. M. Agra & S. Kumar; “Structural and morphological study of the liquid crystal alignment layers”; in preparation.

**B. R. Acharya**, A. Primak, S. Kumar, T. J. Dingemans, E. T. Samulski, & P. Toledano; “Existence of biaxial nematic phase exhibited by bent core molecules” submitted to PRL 2001.

J. -H. Kim, **B. R. Acharya**, D. M. Agra, & S. Kumar; “Thermal stability of liquid crystal alignment layers prepared by In-situ Ultra-Violet exposure during imidization of polyimide.” *Jpn. J. Appl. Phys.* (2001) In press.

**B. R. Acharya**, J. H. Kim & S. Kumar; “A simple and material-independent method to determine the anchoring properties of rubbed polyimide surfaces” *Jpn. J. Appl. Phys.* **38**, L538 (1999).

**B. R. Acharya**, J. H. Kim & S. Kumar; “Material-independent determination of the anchoring properties on the rubbed polyimide surfaces” *Phys. Rev. E* **60**, 6848(1999).

J. H. Kim, **B. R. Acharya**, D. M. Agra, & S. Kumar; “Thermally stable alignment on polyimide films exposed to UV during imidization of polyimide ” *Society of Information Display (SID) Digest* (1999).

J. H. Kim, **B. R. Acharya**, K. R. Ha & S. Kumar; “A method for liquid crystal alignment using in-situ ultraviolet exposure during imidization of polyimide” *App. Phys. Lett.* **73**, 23 (3372) 1998.

## PRESENTATIONS AND CONFERENCES

- **B. R. Acharya**, A. Primak, T. Dingemans, E. T. Samulski & S. Kumar; “Biaxial nematic phase in boomerang shaped liquid crystals” *ILCC*, Japan (2000).
- D. M. Agra, **B. R. Acharya**, & S. Kumar “A specular and diffuse x-ray reflectivity study of the liquid crystal alignment layers” *ILCC*, Japan (2000).
- **B. R. Acharya** & S. Kumar “Electro-optical and structural study of the boomerang-shaped liquid crystals” *APS March meeting*, Minneapolis, MN (2000).
- J. -H. Kim, **B. R. Acharya**, D. M. Agra, & S. Kumar “Thermally stable LC alignment on polyimide films exposed to UV during imidization”, *SID Meetings*, San Jose, CA (1999).
- **B. R. Acharya**, J. H. Kim & S. Kumar “Surface characterization of rubbed polyimide films: A new method to determine the liquid crystal anchoring properties” *APS March meeting*, Atlanta, GA (1999).
- ALCOM symposium on Beam Steering, Kent, OH (2000).
- ALCOM symposium on Chiral Materials, Cuyohoga Falls, OH (1999).
- BCSPIN Kathmandu Summer School, Kathmandu, Nepal (1995).

## PROFESSIONAL ACTIVITIES

Member: American Physical Society, International Liquid Crystal Society, Nepal Physical Society, and Nepal University Teachers Association.  
Founder President: Students’ Association of Physics, Nepal.  
Referee/ Reviewer: Physical Review E and Liquid Crystals.

## REFERENCES

Available upon Request