Compendium of pulp and paper training and research institutions
FOREWORD

This compendium presents a world-wide list of institutions specialized in professional training in the pulp and paper industry sector and indicates the organizations involved in research and development programmes. The list is compiled alphabetically by country for ease of reference by users. The compendium lists all types of institutions ranging from custom-designed courses for a specific subject to be delivered within a company to conventional programmes on university campus. All sectors of training related to the industry are covered, including management, professional, technical, production activities in the wood and non-wood-based pulp and paper industry.

The Organization expresses great appreciation to the FAO Advisory Committee of Experts on Pulp and Paper who collaborated in the preparation of this document. It was compiled from answers received from institutions directly, from industry contacts or from professional associations.

The compendium provides the following information about each institution:

- name and address,
- name of director,
- telephone, telex and fax number,
- a short description of the programme offered, when available.

It is intended as a source of reference to anyone considering or requiring professional training in the sector, and would allow the user to contact directly the institute selected to obtain information on exact description of course, dates and duration and financial implications or other aspects of interest.

We would be pleased to receive any amendments and/or corrections, which would be used in subsequent revisions of the document. The contributions should be sent to:

Chief, Wood Industries Branch
Forest Products Division
Forestry Department
Food and Agriculture Organization of the United Nations
Via delle Terme di Caracalla
00100 Rome (Italy)

It is hoped that users will find this document a useful source of information on institutions providing training in the pulp and paper industry sector.

C.H. Murray
Assistant Director-General
Forestry Department
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ARGENTINA

1. Escuela Nacional de Educación Técnica (ENET)
   Nro. 1 Otto Krause
   Av. Paseo Colón 650
   Capital Federal
   Telephone: (54 1) 331 5249/6865

2. Instituto Nacional de Tecnología Industrial (INTI)
   Av. Leandro N. Alem 1067 - Piso 7
   Capital Federal
   Telephone: (54 1) 313 3013/3153/3092/3054/3243/3404/3253
   Fax: (54 1) 3132130
   Telex: 21859 INTI AR

3. Centro de Investigaciones de la Celulosa y el Papel (CICELPA)
   Av. Gral. Paz entre Constituyentes y Albarellos
   Casilla de Correo 157
   CP. 1650
   Telephone: (54 1) 7524901
   Fax: (54 1) 7552102
   This organization depends on the Instituto Nacional de Tecnología Industrial (INTI) and accepts scholarship students mainly from Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET)
   It offers formal academic courses to students, research programmes for students, specialized training centre, and post graduate courses for engineers. Certificates of studies, not diplomas, are granted.

4. Universidad Tecnológica Nacional (UTN)
   Sarmiento 440
   Capital Federal
   Telephone: (54 1) 3948075/322 3848/5194/6166
   Certificates of studies, not diplomas, are granted.
5. Instituto Celulósico Papelero  
Facultad de Ingeniería Química del Litoral - Santa Fe  
Santiago del Estero  
2829 Santa Fe, Provincia de Santa Fe  

Telephone: (54 42) 20010-42025  
Telex: 48153 INLIT AR

This institute depends on the Facultad de Ingeniería Química del Litoral and accepts scholarship students from such places as CONICET.

It offers formal academic courses to students, research programmes for students, and specialized training centre.

6. Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET)  
Av. Rivadavia 1917  
Capital Federal  

Telephone: (54 1) 953 0102/2802/1915/4671/4429  
Fax: (54 1) 9534345  
Telex: 18052 CITI AR  

7. Universidad Nacional de Misiones  
Facultad de Ingeniería Química  
Colón 1559  
Posadas, Provincia de Misiones  

Telephone: (54 752) 25414  

Post-graduate courses on pulp and paper are offered with delivery of a certificate.

8. Asociación de Técnicos de la Industria Papelera y Celulósica Argentina  
Av. Belgrano 2850  
Capital Federal  

Telephone: (54 1) 979716  
Fax: (54 1) 979916
AUSTRALIA

1. Box Hill College of Technical and Further Education  
   Off-Campus Centre  
   P.O. Bag 2018  
   Box Hill, Victoria 3128  
   Telephone: (61 3 ) 8900789  
   Course designed for off-campus independent studies by mill operators.  
   Certificate of Pulp and Papermaking Technology

2. Australian Pulp and Paper Institute (APPI)  
   Department of Chemical Engineering  
   Monash University  
   Clayton, Victoria 3168  
   Telephone: (61 3) 5653422  
   Telex: MONASH AA 32691  
   Post-graduate education and research programme.  
   Master and Graduate Diploma in Engineering Science in Pulp and Paper Technology.  
   Course work occupies two semesters and is followed by completion of a minor thesis.  
   Note: Both programmes are supported by the Pulp and Paper Manufacturers Federation of Australia.

3. Commonwealth Scientific and Industrial Research Organization (CSIRO)  
   P. O. Box 225  
   Dickson, ACT 2602  
   Telephone: (61 6) 276 6491  
   Fax: (61 6) 276 6292  
   Contact: Ms. Sarah Ryan  
   Offers research and development facilities as well as training and courses for university students and pulp and paper professionals.
AUSTRIA.

1. Papiermacherschule Steyermühl
Brunntalstraße 10
A-4662 Steyermühl

Telephone: (43 7613) 2195/2196
Fax: (43 7613) 219513

This is a professional training institute offering vocational training for skilled and unskilled workers.

It also offers seminars and courses on technical and economic topics, open to everyone.

This is a private organization, founded, run and financed by the Austrian paper industry.

2. Technische Universität Graz
Institut für Papier- Zellstoff- und Fasertechnik
Kopernikusstraße 24
A-8010 Graz

Telephone: (43 316) 8730
Fax: (43 316) 827685

This is an academic institution where, after 4 semesters of studies, students take 10 semesters in pulp and paper technology to graduate as "certified engineer" (Dipl. Ing.) or after an additional dissertation as "doctor of technological sciences" (Dr. Techn.).
1. Foundation for the Technological Development of Engineering (FDTE)
University of São Paulo, Covenant with ABTCP/ANFCP/APFCP

Contact Mr. Francisco Bosco de Souza
Associacao Brasileira Tecnica de Celulose e Papel (ABTCP)
Rua Brigadeiro Galvão, 540 - Barra Funda
São Paulo, SP 01151

Telephone: (55 11) 8254061/66734
Fax: (55 11) 673754
Telex: (11) 34125

Specialized pulp and paper courses for engineers.

2. Escola Senai e Centro Tecnico de Celulose e Papel
Av. Presidente Kennedy, 66
Caixa Postal 300
Telemaco Borba, Paraná

Course Coordinator: Eng. Ademilson Massoqueti

Telephone: (55 422) 72 1995

Technical level course, one and a half year full time course plus half a year training.

3. Escola Senai Theoblado de Nigris
Rua Bresser, 2315
São Paulo, SP 03053

Course Coordinator: Eng. Roberto Rosa

Telephone: (55 11) 2649780/2649831

Technical level course, one-year full-time course plus half a year training.
4. Faculdades Oswaldo Cruz, Convenant with ABTCP

Contact Mr. Francisco Bosco de Souza
Associação Brasileira Técnica de Celulose e Papel (ABTCP)
Rua Brigadeiro Galvão, 540 - Barra Funda
São Paulo, SP 01151

Telephone: (55 11) 8254061/66734
Fax: (55 11) 673754
Telex: (11) 34125

Pulp and paper manufacture extension course at basic level.

5. Associação Brasileira Técnica de Celulose e Papel (ABTCP)
Rua Brigadeiro Galvão, 540 - Barra Funda
São Paulo, SP 01151

Coordinator: Mr. Francisco Bosco de Souza

Telephone: (55 11) 8254061/66734
Fax: (55 11) 673754
Telex: (11) 34125

Technology of pulp course (552 hours theoretical plus 32 hours training) for engineers with less than six months' experience in the sector.

Also offers technical informative short courses.

6. Instituto de Pesquisas Tecnológicas
Divisão de Produtos Florestais, Texteis e Couros
Agrupamento de Celulose e Papel
Av. Professor Almeida Prado, 532
São Paulo, SP 05508

Contact: Silâvia Bergman

Telephone: (55 11) 2682211 - R. 409

Specialized course for graduates level.
7. Universidade Federal do Paraná
Rua Bom Jesus, 650
Bairro Juveve
Caixa Postal 2959,
80035 Curitiba, Paraná

Contact: Nadir Silva Castro
Telephone: (55 41) 252 7022
Fax: (55 41) 253 2332

Master in Forest Sciences - Pulp and Paper.

8. Universidade Federal de Viçosa,
Departamento de Engenharia Florestal
Av. P.H. Rolfs, s/n
36570 Viçosa, MG

Telephone: (55 31) 899 2465
Fax: (55 31) 891 1903
Telex: (31) 1587

Post-graduate and master courses.

9. Escola Superior de Agricultura "Luiz de Queiroz"
Universidade Estadual de São Paulo
Departamento de Ciências Florestais
Avenida Pádua Dias, 11
Caixa Postal 09
13400 Piracicaba, SP

Telephone: (55 194) 3300 11 (Ext. 4129/4174)
Fax: (55 194) 2259 25/3380 81
Telex: 091-1141

Post-graduate and master courses.

10. Escola Politecnica da Universidade de São Paulo/IPT
USP - Cidade Universitaria
C. Postal 7141
01000 São Paulo, SP

Telephone: (55 11) 268 2211
Telex: (011) 83144 INPT BR

Post-graduate courses.
11. Escola Técnica de Guaíba  
Rua São Geraldo, 1680  
92500 Guaíba, RS  
Telephone: (55 512) 80 2301  
Fax: (55 512) 80 2878  

Middle level courses.  

12. Associação Nacional dos Fabricantes de Papel e Celulose - ANFPC  
Rua Afonso de Freitas, 199  
04006 Paraíso, São Paulo, SP  
Telephone: (55 11) 885 1845  
Fax: (55 11) 885 3689  
Telex: (011) 32659
1. Naučno Izledovatiski Institut po Celuloza i Hartiia
Gara Iskr
BG-1528 Sofia

Direktor: K. Szavov

Telex: 22 673
CANADA

1. Sault College of Applied Arts and Technology
   Pulp and Paper Program
   P.O. Box 60
   Sault-Ste-Marie, Ontario P6A 5L3
   Contact: Mr. Adam Sugden
   Telephone: (1 705) 7596700
   Pulp and paper technology programme, six semesters.

2. British Columbia Institute of Technology
   Pulp and Paper Program
   2700 Wellington Avenue
   Burnaby, B.C. V7G 3H2
   Contact: Mr. Steven Berghold
   Telephone: (1 604) 432 8887
   Fax: (1 604) 431 9258
   Pulp and paper technology programme, four semesters.

3. Centre Spécialisé en Pâtes et Papiers
   CEGEP de Trois-Rivières
   2250, rue St. Olivier
   C.P. 97
   Trois-Rivières, Quebec G9A 5E6
   Director: Mr. Pierre Lavoie
   Telephone: (1 819) 3761721
   Fax: (1 819) 3761026
   Pulp and paper technology programme, six semesters.
4. Canadian Pulp and Paper Association (CPPA)
Human Resources Section
1115 Metcalfe Street
Montréal, Quebec H3B 4T6

Contact: Mr. Sylvain-Yves Longval
Telephone: (1 514) 8666621
Fax: (1 514) 8663035

Intensive short courses to technically oriented personnel from the pulp and paper industry.

Modular training programme for operators and technical personnel to be used in a mill training environment.

5. Pulp and Paper Research Institute of Canada (PPRIC)
570 St. John’s Boulevard
Pointe-Claire, Quebec H9R 3J9

Contact: Ms. Sylvie Labossière
Telephone: (1 514) 6304100
Fax: (1 514) 6309444

Two-week course on the fundamentals of pulping and papermaking, requires at least a bachelor’s degree or equivalent in engineering or science.
Academic courses in raw materials, pulping and papermaking technology, and recycling. The university also offers specialized courses on various pulp and paper issues.

4. Asociación Técnica de la Celulosa y el Papel, ATCP - Chile
   Lincoyan 199 - 2º Piso
   Casilla 74 C
   Concepción

   Telephone: (56 41) 237679

5. Instituto Profesional Virginio Gómez
   Arturo Prat 451
   Los Angeles

   Telephone: (56 43) 322544
6. Instituto Profesional Diego Portales
Maipú 301
Concepción

Telephone: (56 41) 229454
Offers graduate studies and research activities in pulping, papermaking and environmental abatement, as well as training and courses for paper mills operators.

2. Westnorth Light Industrial College  
Xian-Yang City 712081
Telephone: 4389
Offers undergraduate and graduate studies in pulp and paper technology as well as courses for paper mills operators and technicians.

3. Tian-Jin Light Industrial College  
Tian-Jin City 300222
Telephone: (86 22) 840965
Offers undergraduate and graduate studies in pulp and paper technology as well as courses for paper mills operators and technicians.

4. Hubei Industrial College  
Wuban City 430068
Telephone: (86 27) 873865
Offers undergraduate and graduate studies in pulp and paper technology as well as courses for paper mills operators and technicians.

5. Dalian Light Industrial College  
Dalian City 116011
Telephone: (86 411) 641891
Offers undergraduate and graduate studies in pulp and paper technology as well as courses for paper mills operators and technicians.
6. Huanan Technical University  
Guangzhou City 510641  
Telephone: (86 20) 774433  
Offers undergraduate and graduate studies in pulp and paper technology as well as courses for paper mills operators and technicians.

7. Beijing Forestry University  
Beijing 100083  
Telephone: (86 1) 2568811  
Offers undergraduate and graduate studies in forest products and pulp and paper technology.

8. Nanjing Forestry University  
Nanjing 210037  
Telephone: (86 25) 653231  
Offers undergraduate and graduate studies in pulp and paper technology as well as courses for paper mills operators and technicians.

9. Eastnorth Forestry University  
Harbin 150040  
Telephone: (86 451) 63161  
Offers undergraduate and graduate studies in pulp and paper technology as well as courses for paper mills operators and technicians.

10. Hebei Light Industrial and Chemical Engineering College  
Shijiazhuang City 050018  
Telephone: (86 311) 47946  
Offers undergraduate and graduate studies in pulp and paper technology as well as courses for paper mills operators and technicians.

11. Shandong Light Industrial College  
Jinan City 250100  
Telephone: (86 531) 44221  
Offers undergraduate and graduate studies in pulp and paper technology as well as courses for paper mills operators and technicians.
12. Fujian Forestry College  
Nanping City 35300  
Telephone: 25677  
Offers undergraduate and graduate studies in forest products and pulp and paper technology.

13. Guangxi University  
Nanning City 530004  
Telephone: (86 771) 33231  
Offers undergraduate and graduate studies in pulp and paper technology as well as courses for paper mills operators and technicians.

14. Yunnan Industrial College  
Kunming City 65005  
Telephone: (86 871) 29031  
Offers undergraduate and graduate studies in pulp and paper technology as well as courses for paper mills operators and technicians.
COLOMBIA

1. Asociación Colombiana de Técnicos de la Industria de Pulpa, Papel y Cartón (ACOTEPAC)
   Apartado Aéreo 67118
   Medellín

   President: Sr. Orlando Aristizabal
   Telephone: (57 4) 2305544

   This association offers technical seminars and is initiating the implementation of a
technical school and a training centre for the paper industry.

2. Universidad Industrial de Santander (UIS)
   Facultad de Ciencias
   Centro de Investigaciones en Celulosa y Papel (CICELPA)
   Apartado Aéreo 678
   Bucaramanga

   Director: Ing. Carlos Omar Briceño
   Telephone: (57 76) 452101/456141

   Master degree in pulp and paper with courses in all areas of pulp and paper
   technology.

3. Asociación Nacional de Industriales - ANDI
   Comité de Pulpa, Papel y Cartón
   Calle 15 N° 35-110
   Autopista Cali-Jumbo
   Apartado Aéreo 244
   Cali

   Coordinator: Doctora Maria del Rosario Marmolejo

   Telephone: (57 23) 652650
   Fax: (57 23) 652701
   Telex: 055531
CZECHO-SLOVAKIÁ

1. Vyvojovy a Racionalizacni Ustav
   Prumyslu Papiru a Celulozy
   Pristavni 1
   CS - Praha 7

   Direktor: Jaroslav Tauc
   Telex: 121 890

2. Vyskumnny Ustav Papieru a Celulozy
   Lamacka 3
   CS-81520 Bratislava

   Direktor: Ing. Boris Hradecky
   Telex: 93 278
FINLAND

1. Helsinki University of Technology
   Linkage Programme
   Otakaari 1
   SF-02100 Espoo

   Course Director: Professor Paavo Uronen

   Telephone: (358 0) 451 4025
   Fax: (358 0) 451 4068
   Telex: 125161 h.tkk sf

   Graduate level programme in process control and production management for Finnish and foreign students.

2. Helsinki University of Technology
   Department of Forest Products
   Vuorimiehentie 1
   SF-02150 Espoo

   Telephone: (358 0) 451 4011

   Offers courses in pulp and paper technology.

3. Åbo Akademi University
   Faculty of Chemical Engineering
   Domkyrkotorget 3
   SF-20500 Åbo

   Telephone: (358 21) 654311

   Offers courses in pulp and paper chemistry.

4. Lappeenranta University of Technology
   Department of Chemical Technology
   P.O. Box 20
   SF-53851 Lappeenranta

   Telephone: (358 53) 5711

   Offers courses in paper technology.
5. Tampere University of Technology  
Department of Material Sciences  
P.O. Box 527  
SF-33101 Tampere  

Telephone: (358 31) 162111  

Offers courses in extrusion technology.

6. University of Oulu  
Department of Process Technology  
Linnanmaa  
SF-90570 Oulu  

Telephone: (358 81) 353611  

Offers courses in paper machines, process control and instrumentation.
L’Institut pour la Recherche et la Formation Professionelle de la Production, de la Transformation et de la Distribution des Papiers-Cartons et des Industries Connexes (IRFIP), is the organization grouping all institutes involved in training in the pulp and paper sector in France.

Three addresses:

- **IRFIP**
  154, Boulevard Haussman
  75008 Paris
  President: M. Gilbert Lescop
  Telephone: 45628707
  Fax: 45628247

- **IRFIP Sud-Est**
  66, Blvd du Maréchal-Foch
  BP 383
  38015 Grenoble Cedex 01
  Délégué Régional: M. Nicolas Le Riche
  Telephone: 76498510

- **IRFIP Est**
  2, rue Girardet
  BP 433
  54001 Nancy Cedex
  Délégué Régional: M. Gérard Izarn
  Telephone: 83355132/83370402
Institutes offering courses and degrees in the pulp and paper sector:

1. Ecole Française de Papeterie et des Industries Graphiques
   Domaine Universitaire
   BP 65
   38402 Saint-Martin D'Hères

   Directeur: Monsieur Renaud
   Telephone: 76826900

   Offers engineering degree.

2. Lycée Vaucanson
   27, rue Anatole France
   38000 Grenoble

   Proviseur: M. Gibello
   Telephone: 76965518

   Offers technician degree, superior and ordinary level.

3. Lycée d'Aire sur l'Adour
   Route de Geaune
   40800 Aire sur l'Adour

   Proviseur: M. Pichon
   Telephone: 58515300

   Offers technician degree, superior and ordinary level, and degree for production and maintenance agents.

4. Lycée de Limoges
   14, rue Puy Imbert
   87000 Limoges

   Proviseur: M. Garcia
   Telephone: 55334682

   Offers technician degree, superior level, and degree for production agents.
5. Centre de Formation Papetier
6, rue Gérard d'Alsace
88400 Gérardmer
Contact: M. Belliard.
Telephone: 29632203
Offers technician degree, superior and ordinary level, and degree for production and maintenance agents.

6. Lycée de Gérardmer
Route de la Rochotte
88400 Gérardmer
Contact: M. Belliard
Telephone: 29632203
Offers degree for production and maintenance agents.

7. Lycée d'Haguenau
123, route de Strasbourg
67504 Haguenau
Proviseur: M. Gliech
Telephone: 88930491
Offers technician degree, ordinary level, and degree for production and maintenance agents.

8. Lycée de Domène,
Rue Gustave Rivet
38420 Domène
Proviseur: M. Boisliveau
Telephone: 76770485
Offers degree for production and maintenance agents.
9. **Ecole Industrielle de Rouen**  
   50, rue Méridienne  
   76100 Rouen  
   Directeur: M. Perdriel  
   Telephone: 35725535  
   Offers degree for production and maintenance agents.

10. **Lycée de Parentis**  
    Rue du Lycée  
    40160 Parentis en Born  
    Proviseur: M. Martin  
    Telephone: 58784265  
    Offers degree for production and maintenance agents.
GERMANY

1. Technische Hochschule Darmstadt
   Institut für Papierfabrikation,
   Alexanderstraße 8
   D-6100 Darmstadt
   Contact: Prof. Dr. Lothar Göttsching
   Telephone: (49 6151) 162154
   Fax: (49 6151) 162454
   Telex: 419 452 ifp d

2. Technische Universität Dresden
   Institut für Papiertechnik
   Mommsenstraße 13
   D-8027 Dresden
   Contact: Prof. Dr. sc. techn. J. Blechschmidt
   Telephone: (37 51) 4630
   Fax: (37 51) 4593028
   Telex: 069-2278

3. Papiermacherzentrum Gernsbach
   Scheffelstraße 29
   D-7562 Gernsbach
   Contact: Dr. Wilfried Haible
   Telephone: (49 7224) 6401 92
   Fax: (49 7224) 6401 14
   Telex: 78920 pmz

   Institution sponsored by the German pulp and paper industry which offers courses in pulp and paper technology and in mill management.

4. ZEPA Engineering GmbH
   Pirnaer Str. 31/33
   D-8312 Heidenau
   Rektor: Dipl. Ing. R. Ocken
   Fax: (37 51) 9244172
5. Forschungszentrum Verpackung
Reisstraße 42
D-8017 Dresden
Direktor: Mathes
Telex: (37 51) 2338
HUNGARY

1. Papiripari Kutatóintézet Kft.
Duna u. 57
H-1215 Budapest

Managing Director: Dr. Õva Polýánszky

Fax: (36 1) 2773750

2. Technical Association of the Paper and Printing Industry
Fő u. 68
H-1371 Budapest

Contact: Mrs. Anna Wertheim

Fax: (36 1) 2020256
The following institutions offer courses in forest products:

1. **Hokkaido University**  
   Forest Products Course in Faculty of Agriculture  
   9-chome, 9 jyo-nishi  
   Kita-ku  
   Sapporo City 060  
   Telephone: (81 11) 7162111

2. **The University of Tokyo**  
   Forest Products Course in Faculty of Agriculture  
   1-1, Yayoi 1-chome  
   Hunkyo-ku  
   Tokyo 113  
   Telephone: (81 3) 38122111

3. **Tokyo University of Agriculture and Technology**  
   Forest Products Course in Faculty of Agriculture  
   8-1 Harumicho 3-chome  
   Fuchu City  
   Tokyo 183  
   Telephone: (81 423) 643311

4. **Shizuoka University**  
   Forest Products Science Course in Faculty of Agriculture  
   836 Otami  
   Shizuoka City, 422  
   Telephone: (81 542) 371111

5. **Kyoto University**  
   Wood Science and Technology Course in Faculty of Agriculture  
   Oiwakecho, Kitashirakawa  
   Sakyi-ku  
   Kyoto City, 606  
   Telephone: (81 75) 7512111
6. Kyushu University
Forest Products Course in Faculty of Agriculture
10-1 Hakozaki 6-chome
Higashi-ku
Fukuoka City, 812

Telephone: (81 92) 6411101
1. Universidad de Guadalajara
   Instituto de Madera, Celulosa y Papel “Ing. Karl Augustín Grellmann”
   Apartado Postal 4-120
   44400 Guadalajara, Jalisco

   Telephone:  (52 36) 137659/137660/137661
   Fax:        (52 36) 137661
   Telex:      0682744 XHUGME

   Director:   Ing. José Turrado Saucedo
NORWAY

1. Technical University of Norway
   Department of Cellulose Technology
   Trondheim
   Contact: Prof. Per Koch Christensen, or
            Prof. Torbjorn Helle
PERU

1. Universidad Nacional Agraria
   Facultad de Ciencias Forestales
   Departamento de Industrias Forestales
   Av. La Universidad s/n
   A.P. N° 456
   La Molina - Lima 17

   Contact: Ing. Enrique González Mora
   Telephone: (51 14) 352035 (Ext. 227)
   Fax: (51 14) 377912

   Offers academic programme at superior level in pulp and paper technology.
PORTUGAL

1. Universidade da Beira Interior
   Rua Marquês d'Avila e Bolama
   6200 Covilhã

   Director: Prof. Dr. M. Santos Silva
   Telephone: (351 75) 314207
   Fax: (351 71) 26198
   Telex: 53733 UBI P

   Graduate Course in Paper Engineering consists in two cycles, basic lasting 2 years, and specialized lasting 3 years.

   Master Degree in Paper and Forest Products Science and Technology which lasts 2 years and is open to industry technicians and teachers.

   Scholarships are available.

2. Escuela Superior de Tecnologia de Tomar
   Ave. Cândido Moreira, 13
   2300 Tomar

   Director: Prof. Eng. Rui Sant'Ovaia
   Telephone: (351 49) 321500
   Fax: (351 49) 321750
   Telex: 44561 ESTT P

   Offers cellulose and paper technology courses on a three-year programme.
ROMANIA

1. Institutul de Cercetari si Proiectari pentru Celuloza si Hirtie
   B. Al. I. Cuza St. 3
   RO-6100 Braila

   Direktor: G. Borhan

   Telex: 55 240
RUSSIAN FEDERATION

1. Pulp and Paper Technology Institute
   Ivana Tchernich 4
   SU-198092 Saint Petersburg

2. Vsesoiuzno Nauchno Promyslennoe
   Obedinenie Bum. Prom
   Pr. Sverkna 49
   SU-194021 St. Petersburg
   Generalni Direktor: A.I. Ivanov
   Fax: (7 812) 2478063

3. Centralnii Nauchno Isledovatelski
   Institut Bumagi
   ul. Lenina d. 15/1
   SU-141290 Pravdinski (Moskovskaia oblast)
   Direktor: B.V. Drehov
   Telex: 846156

4. Ukrainskoe Nauchno Promyslennoe
   Obedinenie Bu. Prom
   ul. Kutuzova d. 18/7
   SU-252133 Kiev
   Generalni Direktor: N.T. Lozovik
SPAIN

1. Universidad Politécnica de Cataluña
Escuela Técnica Superior de Ingenieros Industriales de Terrasa
Especialidad Gráfica y Papelera
Calle Colón 11
08222 Terrassa, Barcelona

Professor in charge: José F. Colom

Telephone: (34 3) 7398172/7860193
Fax: (34 3) 7398101

2. Universidad Politécnica de Madrid
Escuela Superior de Ingenieros de Montes
Ciudad Universitaria
28040 Madrid

Professor in charge: Luis Sierra

Telephone: (34 1) 3367007

3. Universidad Politécnica de Madrid
Escuela de Ingeniería Técnica Forestal
Ciudad Universitaria
28040 Madrid

Professor in charge: Cristina Molleda

Telephone: (34 1) 3367661
Fax: (34 1) 5446025

4. Escuela de Ingeniería Técnica Papelera
Calle del Papel s/n
20400 Tolosa, Guipuzcoa

Head Professor: Antonio Morán Verdu

Telephone: (34 43) 672900
Fax: (34 43) 672078
SWEDEN

1. **The Royal Institute of Technology**
   S-100 44 Stockholm
   
   Telephone: (46 8) 790 6000
   Fax: (46 8) 109199
   
   Graduate and undergraduate studies, and research activities in wood chemistry:
   Professor Göran Gellerstedt, extension 8109
   
   Graduate and undergraduate studies and research activities in cellulose technology:
   Professor Nils Hartler, extension 8100
   
   Undergraduate, graduate and research studies in paper technology.
   Process technology: Professor Bo Norman, tel 7908117, fax 7966080
   Material science: Professor Christer Fellers, tel 6767196, fax 115518
   Coating technology: Professor Mikael Rigdahl, tel 6767195, fax 115518
   Paper chemistry: Professor Lars Ödberg, tel 6767249, fax 115518
   Packaging materials: Professor Sören Cavlin, tel 7525700, fax 7513889

2. **Chalmers University of Technology**
   Department of Engineering Chemistry,
   S-412 96 Göteborg
   
   Telephone: (46 31) 721000
   Fax: (46 31) 723872
   
   Offers academic training and research facilities at undergraduate and graduate levels
   in the pulp and paper field.
Under the Chemical Engineering programme, offers a specialization in pulp and paper at the following levels:

- Undergraduate courses at Master's level (4.5 years of study) and engineering level (2 years of study);
- Graduate and research education.

Contact: Professor Roland Wimmerstedt, Dean, Chemical Engineering Dept.

3. The University of Lund
Box 117
S-221 00 Lund

Telephone: (46 46) 107000
Fax: (46 46) 104720

Under the Chemical Engineering programme, offers a specialization in pulp and paper at the following levels:

- Undergraduate courses at Master's level (4.5 years of study) and engineering level (2 years of study);
- Graduate and research education.

4. Karlstadt University College
Box 9501
S-650 09 Karlstadt

Telephone: (46 54) 838000
Fax: (46 54) 119497

Under the Chemical Engineering Department offers an academic programme in pulp and paper training which includes raw materials technology, process computer control and biotechnics. The students must complete a four-month period of work in the industry in order to graduate.

This programme is sponsored by the Swedish Pulp and Paper Association.

5. Swedish Pulp and Paper Research Institute
Box 5604
S-114 86 Stockholm

Telephone: (46 8) 6767000
Fax: (46 8) 115518

A cooperative research institute with universities (mostly with the Royal Institute of Technology). It provides the basis for education of young graduate engineers and scientists in the pulp and paper sector. Also offers further education to technicians employed in the industry.
6. The Educational and Training Centre of the Swedish Forest Industries
S- 28537 Markaryd

Telephone: (46 433) 11280
Fax: (46 433) 16725

The centre offers courses for operators, production and technical as well as management personnel. Advanced courses for engineers from developing countries are available, 11 weeks for pulp and paper technology, 9 weeks for environmental programme.
UNITED KINGDOM

1. Robert Gordon's Institute of Technology
   School of Chemistry
   St. Andrew Street
   Aberdeen, AB1 1HG

   Head of School: Professor I.W. Nowell
   Telephone: (44 224) 633611 (Ext. 568)
   Diploma and certificate in paper technology.

2. Bury Metropolitan College
   Market Street
   Bury, Lancashire BL9 0BG

   Contact: Messrs. Les Bradborn or Roy Fairhurst
   Telephone: (44 61) 7631505 (Ext. 47)
   Courses for operators, technicians, supervisors and middle managers.

3. University of Wales
   School of Agriculture and Forest Sciences
   Bangor, Gwynedd LL57 2UW

   Head: Professor J. B. Owen
   Admissions Tutor: Dr. W.B. Banks

   Telephone: (44 248) 351151
   Fax: (44 248) 354997
   Telex: 61100 UCNW
4. University of Manchester  
Institute of Science & Technology  
Department of Paper Science  
P.O. Box 88  
Manchester, M60 1QD  

Head: Professor N. Wiseman  
Admissions Tutor: Dr. D. J. Priest  

Telephone: (44 61) 2003897  
Fax: (44 61) 2003858  
Telex: 666094 UMIST G  

Master of Science degree in Forest Industries and Paper Technology.  
First year of studies at University of Wales in Bangor followed by second year either at same university or at University of Manchester.

5. PIRA International Training Group  
Randalls Road  
Leatherhead, Surrey KT22 7RU  

Telephone: (44 372) 376161  
Fax: (44 372) 377531  
Telex: 929810 PIRA G  

Degree at post-graduate level.
UNITED STATES OF AMERICA

1. University of Alabama
   Chemical Engineering Department
   241 Mineral Industries Building
   Box 870203
   Tuscaloosa, AL 35487-0203

   Prof. Gary C. April

2. Auburn University
   College of Engineering
   242 Ross Hall
   Auburn, AL 36849-5128

   Dr. Ronald D. Neuman, Director, Pulp and Paper Research.

3. University of Florida
   Gainesville, FL 32611

   Dr. Arthur Fricke, Professor Chemical Engineering (Room 429)

4. Institute of Paper Science and Technology
   575 14th Street, N.W.
   Atlanta, GA 30318

   Dr. R. Matula, Director.

5. Georgia Institute of Technology
   School of Chemical Engineering
   Atlanta, GA 30332-0100

   Dr. Jeffrey S. Hsieh, Director, Pulp and Paper Engineering.

6. University of Georgia
   Dept. of Biochemistry
   Boyd Graduate Research Center
   Athens, GA 30602

   Dr. Karl-Erik Erikson
7. University of Idaho
Chemical Engineering Department
Moscow, ID 83843

Dr. Lewis L. Edwards

8. University of Lowell
Chemical Engineering Department
1 University Avenue
Lowell, MA 01854

Prof. John Wilkinshaw

9. University of Maine - Orono
Chemical Engineering Department
115 Henness Hall
Orono, ME 04459

Dr. David J. Kraske, Chairman

10. Michigan State University
College of Agriculture and Natural Resources
School of Packaging
East Lansing, MI 48824

Prof. Harold A. Hughes, Director

11. Western Michigan University
Dept. of Paper and Printing Science and Engineering
Kalamazoo, MI 49008-3843

Dr. Raymond Jones

12. University of Minnesota
Dept. of Paper Science & Engineering
2004 Falwell Avenue
St. Paul, MN 55108-1305

Dr. Robert H. Rouda, Program Director

13. Mississippi State University
Department of Chemical Engineering
P.O. Drawer CN
Mississippi State, MS 39762

Prof. George Lightsey
14. North Carolina State University
College of Forest Resource
P.O. Box 8005
Raleigh, NC 27695-8005

Dr. Laurence Tombaugh, Dean

15. Rutgers, The State University of New Jersey
Center of Packaging Engineering
Busch Building 3529
P.O. Box 909
Piscataway, NJ 08854

Prof. Dorinda A. Sparacio, Undergraduate Coordinator

16. State University of New York
Paper Science and Technology
Walters Hall
Syracuse, NY 13210

Dr. Leland R. Schroeder, Chairman

17. Rochester Institute of Technology
School of Printing
P.O. Box 9887
Rochester, NY 14623-0887

Dr. Joseph E. Brown

18. Miami (Ohio) University
229 Gaskill Hall
Oxford, OH 45056

Dr. William Scott, Chairman Paper Science and Engineering

19. Oklahoma State University
College of Engineering
Stillwater, OK 74078

Dr. Karl N. Reid, Dean

20. Oregon State University
Department of Forest Products
Pulp and Paper Technology
Corvallis, OR 97331

Prof. Christopher Biermann
21. Lehigh University
Center for Polymer Science and Engineering
Mountaintop Campus
Bldg. A, Room D300
Bethlehem, PA 18105

Dr. Mohamed El-Aasser, Director

22. Texas A. & M. University
Department of Chemical Engineering
College Station, TX 77843

Dr. James S. Yagoobi

23. University of Washington
College of Forest Resources
Anderson Hall
Seattle, WA 98020

Dr. David Thorud, Dean

24. University of Wisconsin - Madison
Dept. of Forestry, Wood Chemistry and Textile Science
1630 Linden Drive
Madison, WI 53706

Prof. Raymond A. Young

25. University of Wisconsin - Stevens Point
Paper Science Engineering
910 Arts Lane
Stevens Point, WI 54481-9542

Dr. Lawrence Graham, Chairman

26. Technical Association of the Pulp and Paper Industry (TAPPI)
P.O. Box 10113
Atlanta, GA 303480

Telephone: (1 404) 4461400
Fax: (1 404) 4466947

Organizes training courses, seminars and conferences for employees of all levels in the pulp and paper industry.
27. Paper Industry Management Association (PIMA)
2400 East Oakton Street
Arlington Heights, ILL 60005

Telephone: (1 708) 9560250
Fax: (1 708) 9560520

Organizes courses, conferences for all participants interested in the pulp and paper industry, with special focus on all levels of management.
YUGOSLAVIA

1. Institut za Celulozo in Paper
Bogisiceva ul. 8.
YU-610 004 Ljubljana

Direktor: Janez Hocevar
Fax: (38-61) 217 797
Telex: 31719