

HI-TECH PROJECTS

(An Industrial Monthly Magazine on New Project Opportunities and Industrial Technologies)

***OCT'2018 Issue
(E-copy)***



ENGINEERS INDIA RESEARCH INSTITUTE

Regd. Off : 4449, Nal Sarak, Main Road, Delhi - 110 006 (India)

* Ph: +91 9811437895, 9811151047, 91-11-23918117, 43658117, 45120361

* E-Mail : elri@elriindia.org, elritechnology@gmail.com

* Website: www.elriindia.org, www.Industrialprojects.in * PayTM: 9811437895

Deposit the amount in "EIRI" Account with HDFC BANK CA- 05532020001279 (RTGS/NEFT/IFSC CODE: HDFC0000553) OR ICICI BANK CA - 038705000994 (RTGS/NEFT/IFSC CODE: ICIC0000387) OR AXIS Bank Ltd. CA - 054010200006248 (RTGS/NEFT/IFSC CODE: UTIB0000054) OR UNION BAK OF INDIA CA-307201010015149 (RTGS/NEFT/IFSC CODE: UBIN0530727) OR STATE BANK OF INDIA CA-30408535340 (RTGS/NEFT/IFSC CODE: SBIN0001067) AND JUST SMS US ON PH. 09811437895

JUST PREPARED NEW PROJECTS FOR YOU

LONG CUFF LATEX GLOVES AND NITRILE GLOVES [EIRI/3238]

Surgical gloves and examination gloves are called Medical gloves. These gloves are medical safety accessories that ensure sanitary hospital conditions by limiting patients' exposure to infectious matter. They also serve to protect health professionals from disease through contact with body fluids. Medical gloves are traditionally made of latex and powdered with cornstarch. Since cornstarch can impede healing if it gets into tissues (as during surgery), non-powdered gloves are being increasingly used during surgery and other sensitive procedures. Special manufacturing processes are used to compensate for the lack of powder. There are two main types of gloves: examination and surgical. Surgical gloves have more precise sizing (numbered sizing generally from 2.5 to size 9) and may be made to higher specifications. Due to the increasing rate of latex allergy among health professionals as well as in the general population, there has been an increasing move to gloves made of non-latex materials such as vinyl or nitrile rubber. However, these gloves have not yet replaced latex gloves in surgical procedures, as gloves made of alternate materials generally do not fully match the fine control or greater sensitivity to touch available with latex surgical gloves.

COST ESTIMATION

Plant Capacity	15,000 Pairs/Day
Land & Building (500 sq.mt.)	Rs. 62 Lacs
Plant & Machinery	Rs. 1 Cr.
W.C. for 2 Months	Rs. 54 Lacs
Total Capital Investment	Rs. 2.22 Cr.
Rate of Return	24%
Break Even Point	53%

FLEXIBLE PACKAGING (ROTOGRAVURE PRINTING) [EIRI/3239]

Flexible packaging products include candy wrappers, bags for cookies, snack foods, fresh and frozen products, diapers and personal hygiene products, envelopes for powdered soups and juices, flexible bags for ketchup and mayonnaise and for cleaning products such as laundry detergents, labels for beverage bottles, peel-off lids and labels for yogurt containers and wrappers for ice cream products. All of the Company's products are manufactured in accordance with international requirements and customized to meet individual customer specifications. Production of flexible packaging products begins in pre-press. The main pre-press process involves the digital design for packaging graphics, including color separation, text and layout. There are two forms of printing: roto gravure and flexography. The roto gravure printing process involves diamond-etching a cylinder for each product's color layer. It

is appropriate for high-quantity orders.

COST ESTIMATION

Plant Capacity	4 Ton./Day
Land (1000 sq.mt.)	Rs. 1.18 Cr.
Plant & Machinery	Rs. 1.25 Cr.
W.C. for 1 Month	Rs. 2.12 Cr.
Total Capital Investment	Rs. 4.63 Cr.
Rate of Return	31%
Break Even Point	50%

OXYGEN LANCING TUBE (PIPE) [EIRI/3240]

Oxygen is used in the manufacture of metals like steel, copper and zinc. Chlorine is used in the manufacture of Aluminum. These gases react with the undesirable impurities and form their respective oxide or chlorides. These oxides or chlorides then float to the surface of the molten metal and are removed. To transfer these gases to the molten metal, a pipe is needed. This pipe is the lancing pipe and the process of injecting gases into molten metal is known as lancing. Traditionally an ordinary pipe has been used. The material of construction is low carbon steel (Mild Steel), electrically resistance welded (ERW) in the shape of a pipe. Since the molten is steel or copper or zinc, and the pipe is of mild steel, the pipe melts into molten metal, at the end which is dipped into it. Besides because of high temperature of the molten metal, the pipe also gets oxidized and melts faster into the molten metal. Hence the pipe gets consumed and has to be replaced. Generally large furnaces are non Tilting in Type and use bottom pouring method to take out the Molten Metal through the Tap Hole. When the Tap hole needs to be opened the same is done with the help of a High Frequency Induction Welded Low Carbon Mild Steel Tube which can sustain 750 PSI Pressure without leaking of Suitable Size 8mm NB, 15mm NB or even 25mm NB in certain Cases.

COST ESTIMATION

Plant Capacity	15 Ton/Day
Land (1500 sq.mt.)	Rs. 1.23 Cr.
Plant & Machinery	Rs. 1.13 Cr.
W.C. for 2 Months	Rs. 4.30 Cr.
Total Capital Investment	Rs. 6.96 Cr.
Rate of Return	36%
Break Even Point	51%

FLOUR MILL [EIRI/3241]

Flour mill serve the purpose of processing wheat to convert it into flour. Wheat grains are the seeds of the wheat plant which is able to grow in kinds of soil and under widely differing climatic conditions. The principle wheat's of commerce belong to the botanical groups Triticum vulgane, Triticum drum and triticum compactum. A grain of wheat is avoid in shape and it bears at one end a number of short fine Grains. The grains of wheat consists of three main parts the enveloping skins, the embryo and the endosperm. The relative proportions of these parts vary with the

plumpness of the grain but the average composition of wheat is 83% endosperm, 2.5% embryo and 14.5% enveloping skins. The enveloping skins are pericarp consists of the eipdorumis, epicarp and endocarp. The pericarp represent about 6% of the grain. The seed coat consisting of the testa the hyaline layer which comprises about 2% of the grain. Mostly wheat is produced in the countries where rain fall is between 13" to 55". From the whole wheat about 85% blown is derived. Flour are made from hard, soft wheat or combination of these. They yield from 100 lb of wheat 72 lbs of flour and 28 lbs of feed.

COST ESTIMATION

Plant Capacity	25 MT./Day
Land & Building (2000 sq.mt.)	Rs. 2.67 Cr.
Plant & Machinery	Rs. 72 Lacs
W.C. for 2 Months	Rs. 2.96 Cr.
Total Capital Investment	Rs. 6.46 Cr.
Rate of Return	26%
Break Even Point	50%

BISCUIT MANUFACTURING [EIRI/3242]

Around the world Biscuits is the principal food and provides more nutrients than any other single food source. The value of grain in the world used for human consumption is over 2, 3 times of the value of the world iron and steel production. Although only 14% of the grain in the world is handled through international channels, cereal grains make up more than half of all the goods in overseas trade. The same Biscuit is made up from the word 'BIS' Which means twice and 'Cut' means Balled suggesting that product should be twice balled. The Biscuit were originally developed to meet the requirement of longer life of the barley products and for this, purpose, the dough were made up and twice balled to make them moisture free to improve their keeping qualities. The Biscuit manufacturing was started a century ago mainly to meet the requirement of European Travelers. The industry was located near the sea port but today we have a large number of factories situated in various parts of the country. Biscuits are one of the important bakery items and can be used whole day irrespective of time. It is very common for morning breakfast and also used as snacks. Biscuits are generally classified into soft biscuits, hard biscuits and crackers. Biscuit dough's are made mainly from flour, fat, sugar and water with minor amounts of flavor, colors, and aerating agents and possibly eggs and fruits.

COST ESTIMATION

Plant Capacity	20 Ton./Day
Land & Building (4000 sq.mt.)	Rs. 2.06 Cr.
Plant & Machinery	Rs. 2.67 Cr.
W.C. for 3 Months	Rs. 5.84 Cr.
Total Capital Investment	Rs. 10.96 Cr.
Rate of Return	52%
Break Even Point	39%

Best Industries to Start and Grow

MANUFACTURING MEDICAL PLASTICS LIKE CATHETERS, SYRINGE, DEXTROSE SALINE (I.V. FLUID) IN PLASTIC BOTTLE, IV SET CANNULA AND RELATED MATERIALS (CODE NO. 1995)

There is a huge demand of Medical Plastics in India and abroad. Many items can be produced in this category. A catheter is a flexible tube made of latex, silicone, or Teflon that can be inserted into the body creating a channel for the passage of fluid or the entry of a medical device. For many years, the epidermal catheters used were plain tubes made of available industrial compounds, and design was largely based on current need. In the 1950s and early 1960s, a very common practice was to cut a suitable length of industrial polyvinyl chloride (PVC) or nylon tubing and have it sterilized with the other surgical equipment. Nowadays, there are many specialized catheter designs. For example, specific catheter designs allow catheters to be used in pulmonary, cardiac (vascular), neonatal, central nervous system, and epidural tissues. Catheters are designed to perform tissue ablation (tissue removal) and even serve as conduits for thermal, optics, and various medical devices. The three major types of catheters are coronary, renal, and infusion. Coronary catheters are used for angiography (x-ray of blood vessels after injection of radiopaque substance), angioplasty (altering the structure of a vessel), and ultrasound procedures in the heart or in peripheral veins and arteries.

COST ESTIMATION

Land & Building (15000 Sq. Yd)	Rs. 22.90 Cr
Plant & Machinery	Rs. 37.32 Cr
W.C. for 2 Months	Rs. 6.81 Cr
Total Capital Investment	Rs. 70.28 Cr
Rate of Return	19%
Break Even Point	60%

INVESTMENT CASTING (CODE NO. 1994)

Ceramic Shell Investment Casting (CSIC) is one of the near net shape casting technologies. The process is based on expendable wax patterns for producing joint-less moulds that are required for near net shape castings. The main difference between investment casting and ceramic shell investment casting is that, in the former process, before dewaxing the wax pattern, it is immersed in a refractory aggregate. Whereas in the ceramic shell investment casting, a ceramic shell gets built around the tree assembly through repeated dipping of the pattern into slurry (refractory material such as zircon with binder). After getting the required thickness of cross section, the tree assembly is de-waxed. The shell obtained

is further immersed in a refractory coating and the metal is poured into it. In this process, a wax pattern assembly is first dipped into a ceramic slurry bath for its primary coating. Thereafter, the pattern is withdrawn from the slurry and is manipulated to drain of the excess slurry to produce a uniform coating layer.

COST ESTIMATION

Plant capacity	3 MT/day
Land & Building (2000 Sq.mt)	Rs. 1.05 Cr
Plant & Machinery	Rs. 93.90 Lacs
W.C. for 1 Month	Rs. 1.25 Cr
Total Capital Investment	Rs. 3.38 Cr
Rate of Return	80%
Break Even Point	42%

POLYOL FROM PROPYLENE OXIDE [CODE NO. 1993]

Polyol is a polyhydric alcohol, i.e. one containing three or more hydroxyl groups. Those having three hydroxyl groups (trihydric) are glycerols, those with more than three are called sugar alcohols, with general formula $\text{CH}_2\text{OH}(\text{CHOH})_n\text{CH}_2\text{OH}$, where n may be from 2 to 5. Polyurethane system comprises polyol and isocyanate used for thermoware/Non-thermoware panel (sandwich) refrigeration block wood imitation and commercial refrigerator, industries with or without blowing agent. Polyols are glycol's of high molecular weight of polyether, polyester and hydrocarbon types. Polyether polyols are manufactured by ethoxylation / propoxylation of a polyhydric alcohol in the presence of a catalyst. The alcohols used are ethylene glycol's, dipropylene glycol's, diethyleneglycols, glycerols, sorbitol, mannitol and sucrose. Polyether polyols are produced by anionic ring opening addition polymerization of ethylene oxide or propylene oxide.

COST ESTIMATION

Plant capacity	20 MT/day
Land & Building (4200 Sq.mt)	Rs. 3.25 Cr
Plant & Machinery	Rs. 5 Cr
W.C. for 2 Months	Rs. 10.27 Cr
Total Capital Investment	Rs. 19 Cr
Rate of Return	34%
Break Even Point	43%

AYURVEDIC AND UNANI PHARMACY [CODE NO. 1992]

Ayurvedic system of medicine is as old as the Vedic age. Now-a-days people give preference to the Ayurvedic medicines as the allopathic medicines are costlier and have side effects. Ayurvedic medicines are based on plants, animals extract and minerals both in single ingredient drugs and compound formulations, however, Ayurveda does not rule out any substances from being used as a potential source of medicine. Ayurvedic compound formulations are mainly divided into two groups viz. (1) Kasthanasadi (predominantly plant drugs)

and (2). Rasasasadi (predominantly metals and minerals). There are several categories of Kasthanasadi formulations such as Asavarista, Avleha, Graha Churena, Taila etc. and of Rasasasadis such as Bhasma, Pusti, Lauha, Kapibadkva, Rasayana etc. The Ayurvedic drugs are derived from vegetable sources from the various parts of the plant like root, leaf, flower, fruit extrude or plant as a whole. Ayurvedic system has its origin in antiquity in our country which has been dedicated to the cure of innumerable ailments.

COST ESTIMATION

Land & Building (800 Sq.mt)	Rs. 1.50 Cr
Plant & Machinery	Rs. 57 Lacs
W.C. for 2 Months	Rs. 61.37 Lacs
Total Capital Investment	Rs. 3 Cr
Rate of Return	50%
Break Even Point	42%

RADIAL TYRE MANUFACTURING UNIT [CODE NO. 1990]

Tyres and tubes, the strategic rubber products and basic supplements to the automotive vehicles are of most importance to the country's economy. The tyre industry sector is providing direct employment to over 40,000 people and indirect employment to lakhs of people. This industry sector is now being considered as a core industry sector. The manufacturing of automobile tyres as an essential ancillary for the development of automobile sector came into being in India during 1930's when the Dunlop India Ltd, the first tyre manufacturing transnational company started its operation in 1935 at Sahaganj in West Bengal. Today, one cannot imagine a world without automobiles even though India has a large network of railway lines, considering the vastness of the country and the thrust given for balanced development, road transport would have decisive role to play in the coming years. Vehicle would become more and more part of not only the commercial like but even the personal like. The Indian tyre and tube industry has been continuously in the process of up gradation of product quality to satisfy the requirements of Indian automotive manufactures, users of automobiles and the road conditions prevailing in the country.

COST ESTIMATION

(ALL FIGURE IN LACS)

Plant Capacity	10000 Tyres/day
Land & Building (10 Acres)	Rs. 1,980
Plant & Machinery	Rs. 40,000
W.C. for 3 Months	Rs. 28,602
Total Capital Investment	Rs. 70,922
Rate of Return	25%
Break Even Point	58%

Start Your Own Industry

25 PVC (POLY VINYL CHLORIDE)
& PVC BASED PROFITABLE PROJECTS

DEXTROSE SALINE (I.V. FLUID) [CODE NO. 3007]

Intra venous fluids, in general are used as I.V drips for patients in nursing homes and hospitals suffering from acute dehydration or considerable debilitating conditions. These I.V fluids replanish the body fluids. Though a number of I.V fluids are there, generally three types of I.V fluids are used in hospitals as I.V drips. They are as follows:- 1. Dextrose injection fluid, 2. Dextrose and sodium chloride injection fluid. Crystalloid: Balanced salt/ electrolyte solution; for msa true solution and is capable of passing through semi permeable membranes. May be isotonic, hypertonic or hypotonic. Normal Saline (0.9% NaCl), Lactated Ringer's, Hypertonic saline (3, 5, & 7.5%), Ringer's solution. However, hypertonic solutions are considered plasma expanders as they act to increase the circulatory volume via movement of intracellular and interstitial water into the intravascular space.

COST ESTIMATION (ALL FIGURES IN LACS)

Plant Capacity	655200 Bottles/day
Land & Building (32000)	Rs. 1,984 Th.
Plant & Machinery	Rs. 12,450 Th.
W.C. for 1 Month	Rs. 921.77 Th.
Total Capital Investment	Rs. 15,425 Th.
Rate of Return	25%
Break Even Point	57%

FLAME RETARDANT PAINTS

[CODE NO. 3006]

The term, "fire retardant paint," is a composition that, when applied to a flammable material, provides thermal protection for the material. In general, this may be done by reducing or perhaps even eliminating the tendency of the material to burn and/or reducing the rate of flame spread along the surface of the material. Preferably, use of the fire retardant paint, for example, on a solid material as the substrate, reduces surface burning characteristics significantly, say, at least about 10%, at least about 25%, or at least about 50%, when compared to untreated material, as tested by an appropriate test. For example, the test may be the ASTM E84 Steiner Tunnel Test. Without being bound by any theory, although it looks and applies like regular paint, its chemical composition changes drastically when introduced to heat. Thus, when heat is applied, the fire retardant paint may "foam up" to form an intact, fire-resistive "char-barrier" to protect the treated surface. As a result, fire is robbed of fuel and oxygen, generates less heat and smoke, and may in some circumstances extinguish itself. Fire retardant paint formulations can vary. Flame retardant coatings are designed

for application over a range of combustible or non-combustible surfaces.

COST ESTIMATION

Plant Capacity	1.00 Ton/day
Land & Building (7000 Sq.Mtr)	Rs. 69 Lacs
Plant & Machinery	Rs. 80 Lacs
W.C. for 1 Month	Rs. 63 Lacs
Total Capital Investment	Rs. 2.23 Cr.
Rate of Return	53%
Break Even Point	44%

NEEM OIL EXTRACT USED FOR COATING OF FERTILIZER [CODE NO. 3005]

Neem oil is a vegetable oil pressed from the fruits and seeds of the neem (Azadirachta indica), an evergreen tree which is endemic to the Indian subcontinent and has been introduced to many other areas in the tropics. It is the most important of the commercially available products of neem for organic farming and medicines. Neem oil varies in color; it can be golden yellow, yellowish brown, reddish brown, dark brown, greenish brown, or bright red. It has a rather strong odor that is said to combine the odours of peanut and garlic. It is composed mainly of triglycerides and contains many triterpenoid compounds, which are responsible for the bitter taste. It is hydrophobic in nature; in order to emulsify it in water for application purposes, it is formulated with surfactants. Azadirachtin is the well known and studied triterpenoid in neem oil.

COST ESTIMATION

Plant Capacity	16.67 MT/day
Land & Building (10000)	Rs. 5.15 Cr
Plant & Machinery	Rs. 3.00 Cr
W.C. for 1 Month	Rs. 5.73 Cr
Total Capital Investment	14.27 Cr
Rate of Return	34%
Break Even Point	45%

BABY DIAPERS MANUFACTURING UNIT [CODE NO. 3004]

Baby diaper may be a newly developed product for India, where as for European countries it has become a general necessity for newly born child caretaking. It was developed & marketed by a Swedish firm some time in the year 1958. As a matter of fact a diaper is used for wrapping the newly born or pretty young children who have not get developed the fixed routine for making water or latrine. He or she may discharge at any time which creates a lot of trouble to his mother or caretaker. Who has no convenient place or time to attend the baby while for an outing, shopping, going to movies or friends & relatives? To avoid all trouble they just wrap their babies with the diaper & baby may discharge whenever he feels to. It can retain the wetting for about two

1. BLISTER FILM P.V.C
2. FOAMED PVC COMPOUNDING & ITS PRODUCTS (PROFILES, BOARDS, PIPES, ETC.)
3. P.V.C. NON-WOVEN MAT
4. P.V.C. INSULATION TAPE
5. P.V.C. PIPES & FITTINGS
6. P.V.C. COMPOUNDING (FRESH)
7. P.V.C. BATTERY SEPARATOR
8. P.V.C. FLEXIBLE PIPES
9. P.V.C. FOOT WEAR
10. P.V.C. LEATHER CLOTH
11. P.V.C. WIRES AND CABLES
12. P.V.C. FILMS
13. P.V.C. GRANULES FROM PLASTIC WASTE
14. P.V.C. CONDUIT PIPES
15. P.V.C. COVER & FILES (CONFERENCE BAGS, FOLDERS, FILE COVERS, DIARY COVERS ETC.)
16. P.V.C./PLASTICS (SOFT/RIGID) FILMS/SHEET
17. P.V.C. INSULATION TAPE
18. P.V.C. STABILIZERS
19. P.V.C. EXTRUSION PROFILES (WIRING CHANNELS)
20. P.V.C. RESIN FROM CALCIUM CARBIDE
21. P.V.C. INDUSTRIAL PRODUCTS (INJECTION MOULDED)
22. P.V.C. FLUSH CISTERN
23. RIGID PVC COMPOUNDED GRANULES FOR INJECTION MOULDING MACHINE (USED FOR PIPE FITTINGS, ELBOWS, SOCKETS, NUTS, ETC.)
24. uPVC DOORS & WINDOWS
25. uPVC DOORS & WINDOWS PROFILES

Each Project Report covers in this CD contains Introduction, Uses, Market, Process with Product Formulae, Suppliers of Plant & Equipments and Raw Materials, Cost Economics with Profitability Analysis, BEP, Resources of Finance etc.

Ask Price of this CD containing all above 25 Project Reports. Payable fully in advance through Bank Draft/ M.O. in favour of **ENGINEERS INDIA RESEARCH INSTITUTE, DELHI**. Delivery within 3 days. (To Order please dial : 098114-37895).

hours or so. Till then his mother finds a suitable time & place & removes the diapers, through it away & replace now one. This way it has given a lot of relief to new mothers. A disposable diaper consists of an absorbent pad sandwiched between two sheets of nonwoven fabric.

COST ESTIMATION

Plant Capacity	48000 Nos/day
Land & Building (2000)	Rs. 92.00 Lacs
Plant & Machinery	Rs. 2.27 Cr
W.C. for 1 Month	Rs. 1.53 Cr
Total Capital Investment	Rs. 4.79 Cr
Rate of Return	72%
Break Even Point	32%

Start Your Own Industry

SS PIPE, TUBES AND RECTANGULAR PIPES

[CODE NO. 3003]

ERW steel pipes & tubes find widespread usage across industries and fields. In addition to various engineering industries, they are used for water, oil and gas distribution, line pipes, fencing, scaffolding etc. They are also used for agricultural purposes, drinking water supply, thermal power, for hand pumps for deep boring wells and also as protection for cables (telecom), among others. Depending on the requirement of the end user industry, ERW steel pipes & tubes are available in various wall thicknesses, diameters, and qualities. The different types include line precision pipes, tubular poles, electric poles, lightweight galvanised pipes for sprinkler irrigation, among others. The industry has sufficient capacity to manufacture the different types of pipes & tubes. High performance ERW steel pipes & tubes possess high strength, toughness and are corrosion resistant.

COST ESTIMATION

Plant Capacity	60 MT/day
Land & Building (10000)	Rs. 16.08 Cr
Plant & Machinery	Rs. 2.88 Cr
W.C. for 2 Months	Rs. 72.28 Cr
Total Capital Investment	Rs. 92.34 Cr
Rate of Return	51%
Break Even Point	30%

ZINC OXIDE [CODE NO. 3002]

Zinc Oxide - This is by far the most important Zinc compound. Zinc Oxide is valuable both for direct application and for production of other zinc compounds. Pure zinc oxide is white at ordinary temperatures, becoming yellow when hot. Its density depends to some extent on the method of manufacture; the accepted value is 5.68 g/cm³. It does not melt, but sublimes at ordinary pressures. Zinc Oxide is the most important and widely used compound of zinc. A part from its direct uses in paint industry, it has application in glass, rubber, ceramics, coated fibres, textiles, and pharmaceutical and toilet industries. It can be the base chemical for the manufacture of most of the zinc compounds.

COST ESTIMATION

Plant Capacity	5 MT/day
Land & Building (5000 Sq.Mtr)	Rs. 4 Cr
Plant & Machinery	Rs. 1.01 Cr
W.C. for 3 Months	Rs. 3.20 Cr
Total Capital Investment	Rs. 8.33 Cr
Rate of Return	52%
Break Even Point	32%

Patrons, deposit amount in EIRI Account

ICICI BANK LTD. CA-038705000994
(RTGS/NEFT/IFSC Code: ICIC0000387)

INDUSTRIAL TRAINING

INSTITUTE (ITI) [CODE NO. 3001]

As per the name suggests, Industrial training centre's/ industrial Training Institutes are set up in order to provide training to the concerned candidates in technical field. Industrial Training Centre is privately run organizations whereas the industrial Training Institutes are government made organizations. They basically provide technical training for post-schools. The basic objective of industrial Training centre is to provide training to the interested candidate and provide there access to the industries for technical manpower.

COST ESTIMATION

Plant Capacity	7000 Student/Annum
Land & Building (8000 Sq.Mtr)	Rs. 6 Cr
Plant & Machinery	Rs. 1.57 Cr
W.C. for 1 Month	Rs. 84.66 Cr
Total Capital Investment	Rs. 9.26 Cr
Rate of Return	24%
Break Even Point	72%

ENA PLANT BASED ON

SORGHUM [CODE NO. 2099]

Neutral spirit is ethanol, which will only have the characteristic taste and odour of ethanol. It is manufactured from molasses, grains and other carbohydrate raw materials. In order to classify the different types of neutral spirit according to the raw materials used for the manufacture, the value of the raw material should be prefixed as follows. Neutral spirit made from grain or malt will be named as grain neutral spirit. Similarly prefix will be used according to raw material used for manufacture. Pure Ethyl Alcohol C₂H₅O also known as absolute alcohol is a colorless mobile inflammable liquid. The term alcohol was first applied to the spirits of wine ethyl alcohol and now it refers to a series of substances with similar characteristics ethyl alcohol is the active constituent of all intoxicating liquors obtained by the fermentation of starchy materials. It is present in the a days prepared in immense quantities chiefly by fermentation and finds numerous industrial uses, and is also being used as a motor fuel. Starch bearing materials potatoes, rice wheat maize sorghum etc. form another important source of alcohol potatoes were extensively used for the manufacture of alcohol in Germany before the War 1st.

COST ESTIMATION

Plant Capacity	40 KL/day
Land & Building (48000)	Rs. 28.50 Cr
Plant & Machinery	Rs. 30.00 Cr
W.C. for 1 Month	Rs. 5.53 Cr
Total Capital Investment	Rs. 65.23 Cr
Rate of Return	14%
Break Even Point	12%

WALL PUTTY CUM GRINDING

UNIT [CODE NO. 2096]

White cement based Wall Putty a plastering material to fill the holes and patches before paint primer or distemper. In general, fillers & stoppers are paste-like materials, highly pigmented, used to fill surface imperfections (fillers) and to make good gross surface defects prior to painting operations (stoppers). Caulking compounds, putties and same cements have a boiled drying oil, usually combine with resins that act as the binder putty is the thick mixture of finely powdered calcium carbonate (whiting) and acid refined linseed oil which imparts good wetting and grinding characteristics.

COST ESTIMATION

Land & Building (8000)	Rs. 2.65 Cr
Plant & Machinery	Rs. 3.50 Cr
W.C. for 2 Months	Rs. 6.10 Cr
Total Capital Investment	Rs. 12.42 Cr
Rate of Return	33%
Break Even Point	48%

NOTE BOOK & REGISTERS ETC.

[CODE NO. 2095]

A student will usually have a different exercise book for each separate lesson. Exercise book format differs from subject to subject, for the majority of subjects, the exercise book will contain lined paper with a margin, but for other subjects such as mathematics, the exercise book will be blank or contain squared paper to aid in the drawing of graphs, tables or other diagrams. On the east coast of Canada they are called "Scribblers". In India they are typically referred to as "Khatas". In some schools, exercise books can change color depending on the subject. For example, Biology might be green and Mathematics may be blue.

COST ESTIMATION

Land & Building (600)	Rs. 63.60 Lacs
Plant & Machinery	Rs. 11.25 Lacs
W.C. for 2 Months	Rs. 62.76 Lacs
Total Capital Investment	Rs. 1.40 Cr
Rate of Return	57%
Break Even Point	32%

PRE-STRESSED CONCRETE

RAILWAY SLEEPERS

[CODE NO. 2094]

Sleepers are members generally laid transverse to the rails on which the rails are supported and fixed, to transfer the loads from rails to the ballast and subgrade below.

COST ESTIMATION

Plant Capacity	600 No./day
Land & Building (8000)	Rs. 3.17 Cr
Plant & Machinery	Rs. 2.00 Cr
W.C. for 1 Month	Rs. 1.76 Cr
Total Capital Investment	Rs. 7.05 Cr
Rate of Return	34%
Break Even Point	50%

Top Industries to Start

SUGARCANE JUICE BOTTLING PLANT IN PET BOTTLES

[CODE NO. 2093]

Sugarcane juice in PET Bottles must be a demandable product as there are few units which are producing mango juice, guava juice, mixed juice and orange juice in PET Bottles but not sugar cane. PET Bottles sugar cane juice will fetch the good market as this is a new concept for our country. Preservation is done when Juice or food is kept for longer period without any deteriorated or spoils the juice by the direct contact with atmosphere. Juices are spoiled by decomposition due to aqueous content in the Juice itself and oxygen and other gases plus moisture in the atmosphere. This content provides healthy condition for micro organisms to growth which spoils the food. The oxygen present in atmosphere or air also helps the microorganisms to grow.

COST ESTIMATION

Plant Capacity	20000 BOTTLES/day
Land & Building (6000)	Rs. 3.27 Cr
Plant & Machinery	Rs. 1.35 Cr
W.C. for 3 Months	Rs. 1.23 Cr
Total Capital Investment	Rs. 6.02 Cr
Rate of Return	64%
Break Even Point	32%

DAIRY FARM (COW & BUFFALOE)

[CODE NO. 2092]

The Jersey breed originated on the Island of Jersey, a small British island in the English Channel off the coast of France. The Jersey is one of the oldest dairy breeds, having been reported by authorities as being purebred for nearly six centuries. The breed was known in England as early as 1771 and was regarded very favorably because of its milk and butterfat production. At that early date, the cattle of Jersey Island were commonly referred to as Alderney cattle although the cattle of this island were later referred to only as Jerseys.

COST ESTIMATION

Plant Capacity	600 LTR/day
Land & Building (3.5 Acre)	Rs. 29.75 Lac
Plant & Machinery	Rs. 14.15 Lacs
W.C. for 1 Month	Rs. 3.79 Lacs
Total Capital Investment	Rs. 81.24 Lac
Rate of Return	3%
Break Even Point	52%

ALUMINIUM FABRICATION (DOOR, WINDOWS, SLIDER ETC.) GLASS PLANT AND ANODIZING

[CODE NO. 2091]

Windows and doors connect the interior of a house to the outdoors, provide ventilation and daylight, and are important aesthetic elements. Windows and doors are often the architectural focal point of residential designs, yet they provide the lowest insulating value in the building

envelope. Although the efficiency of windows has improved markedly, they still represent one of the major energy liabilities in new construction. Aluminum is now widely use as the first choice for the construction of Aluminum Doors & Windows, Ventilators and Front Wall Glazing at all major construction sites such as Hotels, Offices, Complexes, Auditoriums, Hospitals, Show rooms etc. Aluminum Ladders are widely use for domestic as well as in industrial purposes and is also used for various outdoor services such as street light, multistoried buildings, industrial sheds, loco sheds and auditorium's maintenance. Aluminum fabricated items like doors, windows etc. have become that standard accepted feature in most modern buildings,

COST ESTIMATION

Plant Capacity	120 sq.mt./day
Land & Building (5000)	Rs. 3.63 Cr
Plant & Machinery	Rs. 97.50 Lacs
W.C. for 2 Months	Rs. 1.92 Cr
Total Capital Investment	Rs. 6.81 Cr
Rate of Return	21%
Break Even Point	62%

MINI SUGAR PLANT

[CODE NO. 2090]

Sugar is a universal sweetening agent and sugar - cane is the primary age - old source of it. Sugar cane is a very important industrial crop, accounting for about 60% of sugar production in the world. From the times immemorial the word "sugar" is being used variously to express delight as well as distrust sarcastically. Sugar has been used in human diet through the functions of pancreas, depending on the quantity of sugar consumed. It is must for human diet when taken directly or indirectly through various carbohydrate containing food stuffs. Sugar as sucrose is important for energy and metabolic activities.

COST ESTIMATION

Land & Building (16000)	Rs. 8.45 Cr
Plant & Machinery	Rs. 90 Cr
W.C. for 2 Months	Rs. 21.74 Cr
Total Capital Investment	Rs. 123.94 Cr
Rate of Return	10%
Break Even Point	73%

PAPER SHOPPING BAGS

[CODE NO. 2089]

Paper bags are the oldest types of packaging material and are very much prevalent in the modern days in various fields. Infact, paper bag is one of the most common and popular form of packaging. The hand made bags of paper have been a commodity of common use. However, for the manufacture of bags, the introduction of machines is of recent origin about the middle of 19th century. Since then the manufacture of paper bags has become an important industry

in itself, paper bag is the cheapest form of packaging. Such paper bags have the speciality that they are light weight, free from any contaminants like dust, and are, as well, free from shifting or 'puffing' which results in loss of contents. As for the share occupying these paper bags for general use require minimum possible space for storage and shipment, both before and after filling.

COST ESTIMATION

Plant Capacity	33333 NOS./day
Land & Building (245 sq.mt.)	Rs. 32 Lacs
Plant & Machinery	Rs. 13.00 Lacs
W.C. for 2 Months	Rs. 29.77 Lacs
Total Capital Investment	Rs. 77.08 Lacs
Rate of Return	104%
Break Even Point	32%

BULK DRUGS [CODE NO. 2088]

A bulk drug also called active pharmaceutical ingredient (API) — is the chemical molecule in a pharmaceutical product (medicines we buy from the chemist) that lends the product the claimed therapeutic effect. In other words, it is the substance responsible for the product being a medicine, penicillin to give one example. As is evident from this, there are ingredients other than the API in products sold as medicines. These inactive ingredients-exipients — may or may not change from product to product, while the bulk drug would inevitably remain the same as it is the identity of the medicine. When the bulk drug is absent, the product is no longer a medicine and when it is changed, it is a new medicine. One may ask if the existence of the inactive ingredients signify anything to the patient. In the case of most of the existing bulk drugs, change of inactive ingredients don't impact the curative quality of the product, although there are exceptions. This means the drug manufacturers more or less have the liberty to "formulate" the bulk drug using excipients of his choice depending on chemical feasibility and commercial interests. The medicines in the markets in the "form" of tablets, capsules, syrups, drops, intravenous fluids etc., are therefore "formulations." In plain language, the products we refer to as medicines are formulations (of bulk drugs) and not bulk drugs per se.

COST ESTIMATION

Plant Capacity	1500 Kgs/day
Land & Building (3000)	Rs. 3.90 Cr
Plant & Machinery	Rs. 6.05 Cr
W.C. for 2 Months	Rs. 9.78 Cr
Total Capital Investment	Rs. 20 Cr
Rate of Return	53%
Break Even Point	33%

**Deposit amount in EIRI Account
AXIS BANK LTD. 054010200006248
(IFS Code: UTIB0000054)**

Best Industries to Start and Grow

DAIRY PROCESSING UNIT

[CODE NO. 2087]

India has the highest livestock population in the world with 50% of the buffaloes and 20% of the world's cattle population, most of which are milch cows and milch buffaloes. India's dairy industry is considered as one of the most successful development programmes in the post-Independence period. Milk processing in India is around 35%, of which the organized dairy industry account for 13% of the milk produced, while the rest of the milk is either consumed at farm level, or sold as fresh, non-pasteurized milk through unorganized channels. Dairy Cooperatives account for the major share of processed liquid milk marketed in the India. The manufacturing of milk products is obviously high in these milk surplus States. Significant investment opportunities exist for the manufacturing of value-added milk products like milk powder, packaged milk, butter, ghee, cheese and ready-to-drink milk products.

COST ESTIMATION

Plant Capacity	50000 Ltr/day
Land & Building (67786)	Rs. 1.25 Cr
Plant & Machinery	Rs. 6.35 Cr
W.C. for 1 Month	Rs. 5 Cr
Total Capital Investment	Rs. 17.25 Cr
Rate of Return	104%
Break Even Point	21%

DEXTROSE SALINE SOLUTION MANUFACTURING PLANT (USED IN HOSPITALS, NURSING HOMES AND DOCTORS ETC. TO PATIENTS FOR REPLENISHMENT OF FLUID) [CODE NO. 2086]

Intra venous fluids, in general are used as I.V drips for patients in nursing homes and hospitals suffering from acute dehydration or considerable debilitating conditions. These I.V fluids replenish the body fluids. Though a number of I.V fluids are there, generally three types of I.V fluids are used in hospitals as I.V drips. They are as follows:- 1. Dextrose injection fluid, 2. Dextrose and sodium chloride injection fluid. Crystalloid: Balanced salt/electrolyte solution; for msa true solution and is capable of passing through semi permeable membranes. May be isotonic, hypertonic or hypotonic. Normal Saline (0.9% NaCl), Lactated Ringer's, Hypertonic saline (3, 5, & 7.5%), Ringer's solution. However, hypertonic solutions are considered plasma expanders as they act to increase the circulatory volume via movement of intracellular and interstitial water into the intravascular space. Colloid:

Patrons, deposit amount in EIRI Account

STATE BANK OF INDIA

CA-30408535340

(RTGS/NEFT/IFSC Code: SBIN0001273)

High-molecular-weight solutions, draw fluid into intravascular compartment via on cotic pressure (pressure exerted by plasma proteins not capable of passing through membranes on capillary walls). Plasma expanders, as they are composed of macromolecules, and are retained in the intravascular space.

COST ESTIMATION

Plant Capacity	60000 BOTTLES/day
Land & Building (6000)	Rs. 3.69 Cr
Plant & Machinery	Rs. 12 Cr
W.C. for 2 Months	Rs. 2.6 Cr
Total Capital Investment	Rs. 18.12 Cr
Rate of Return	22%
Break Even Point	61%

RECYCLING OF LEAD

[CODE NO. 2084]

Lead is a highly corrosion resistant, dense, ductile, and malleable blue-grey metal, which has been used for at least 5000 years. In some countries, however, environmental or health consequences have eliminated or reduced its use in cable sheathing, petrol additives. Solder, shot, and pigments.

COST ESTIMATION

Plant Capacity	12 MT/day
Land & Building (5000)	Rs. 4.78 Cr
Plant & Machinery	Rs. 1.31 Cr
W.C. for 2 Months	Rs. 11.45 Cr
Total Capital Investment	Rs. 17.90 Cr
Rate of Return	32%
Break Even Point	44%

E-RICKSHAW & E-LOADERS (TUK-TUK) MANUFACTURING

[CODE NO. 2083]

Electric rickshaws (also known as Tuk Tuk, e-rickshaw) have been becoming more popular in some cities since 2008 as an alternative to auto rickshaws and pulled rickshaw because of their low fuel cost, and less human effort compared to pulled rickshaws. They are being widely accepted as an alternative to Petrol/Diesel/CNG auto rickshaws. They are 3 wheels pulled by an electric motor ranging from 650-1400 Watts. They are mostly manufactured in China, only a few other countries manufacture these vehicles. Battery-run rickshaws could be a low-emitter complementary transport for the low-income people, who suffer most from a lack of transport facility, if introduced in a systematic manner according to experts. Apart from E-Rickshaw, company will also make E-Rickshaw which can carry weight up to 300 kgs.

COST ESTIMATION

Plant Capacity	28 Nos/day
Land & Building (6000)	Rs. 3.65 Cr
Plant & Machinery	Rs. 1.12 Cr
W.C. for 1 Month	Rs. 4.50 Cr
Total Capital Investment	Rs. 9.54 Cr
Rate of Return	38%
Break Even Point	41%

Hi-Tech Projects

(Date of Posting 24th to 30th of Every Month,

Weight of Magazine- Upto 48 Gram)

An Industrial Monthly Magazine on Hi-Tech Projects & developed and underdeveloping Technologies with lucrative Project opportunities

Editor

Sudhir Gupta

Asst. Editor

Ankur Gupta

SUBSCRIPTION RATES

FOR INDIA

Single Copy Rs. 20/-

One Year Rs. 225/-

Three Years Rs. 650/-

(Add Rs. 100/- for outstation cheques.

Please make the Draft/ Cheque in favour of "Engineers India Research Institute, Delhi"

Institute, Delhi"

FOR OVERSEAS

Single Copy US\$ 10/-

One Year US\$ 120/-

CAUTION

Project Reports/Profiles provided in this issue had been prepared on datas available at the time of preparing these reports.

Entrepreneurs/Industrialists are requested to please update the data before venturing into any project mentioned herein.

PUBLISHERS



ENGINEERS INDIA RESEARCH INSTITUTE

4449 Nai Sarak, Main Road, Delhi - 110006

(INDIA) Ph : 9111- 23916431, 23918117,

45120361, 9811437895, 9811151047

E-Mail : eiritechnology@gmail.com,

eiriprojects@gmail.com

Website: www.eiriindia.org

www.eiribooksandprojectreports.com

Patrons may also directly transfer the fund for Project Reports & Books in following EIRI current accounts:

HDFC BANK - 05532020001279
(RTGS/NEFT/IFSC CODE: HDFC0001981)

ICICI BANK - 038705000994
(RTGS/NEFT/IFSC CODE: ICICI000387)

AXIS Bank Ltd. - 054010200006248
(RTGS/NEFT/IFSC CODE: UTIB0000054)

UNION BAK OF INDIA - 307201010015149
(RTGS/NEFT/IFSC CODE: UBIN0530727)

STATE BANK OF INDIA - 30408535340
(RTGS/NEFT/IFSC CODE: SBIN0001273)

AND SMS US ON PH. +91 9811437895

Start Your Own Industry

ZINC SULPHATE MONOHYDRATE (21% CRYSTAL & 33% POWDER)

[CODE NO. 2082]

Zinc sulphate is a widely used chemical and has been known under the name of "White Vitriol". Although Zinc Sulphate (mono hydrate) occurs in nature in small quantities as mineral Glosarite, this compound is normally manufactured synthetically. It is the colourless white free flowing powder. It exists in powder form of hydrates as, $ZnSO_4 \cdot H_2O$. Zinc sulphate is also found in three hydrates forms whose molecular formulas are $ZnSO_4 \cdot 4H_2O$, $ZnSO_4 \cdot H_2O$. The unstable hydrates are more soluble than stable form. The solubility of the unstable hydrate is 58.7 gm in 10gm of water at 18°C while stable shows only 52.7 gm in 100 grams. The important & popular commercial form of the compound is $ZnSO_4 \cdot 7H_2O$ Heptahydrated (21%), & $ZnSO_4 \cdot H_2O$. In 1978 Mr. P.N. Thakar and Mr. N.S. Randhawa of Punjab Agriculture University Ludhiana worked on "Micronutrients in Indian Agriculture" and established the areas of Zinc deficiency based on soil test and crop responses. In reference to Bihar state they found that zinc deficiency varies from 25% to 75% and even more of the normal value. It was also shown that the response of zinc sulphate was good for rice potato tea in particular and for all the cereals as a whole.

COST ESTIMATION

Plant Capacity	12 MT/day
Land & Building (4000)	Rs. 2.52 Cr
Plant & Machinery	Rs. 2.57 Cr
W.C. for 2 Months	Rs. 1.42 Cr
Total Capital Investment	Rs. 6.72 Cr
Rate of Return	13%
Break Even Point	72%

SOLVENT EXTRACTION METHOD FOR CURCUMIN [CODE 2081]

Curcumin (synonyms: turmeric yellow, kurkum, INS No. 100(i)) is an orange-yellow crystalline powder. Minor amounts of oils and resins naturally occurring in turmeric may be present. The origin of the plant *Curcuma longa* L., which belongs to Zingiberaceae family is India. The plant is distributed throughout tropical and subtropical regions of the world, being widely cultivated in southeast Asian countries. Turmeric, i.e., the ground rhizomes of *Curcuma longa* L., has a long history of use in food as a spice, mainly as an ingredient in many varieties of curry powders and sauces, where curcumin from turmeric is a main colouring substance. The turmeric (*Curcuma longa*)

plant, a perennial herb belonging to the ginger family, is cultivated extensively in south and southeast tropical Asia. The rhizome of this plant is also referred to as the root and is the most useful part of the plant for culinary and medicinal purposes. The most active component of turmeric is curcumin, which makes up 2 to 5% of the spice. The characteristic yellow color of turmeric is due to the curcuminoids, first isolated by Vogel in 1842. Curcumin is an orange-yellow crystalline powder practically insoluble in water. The structure of curcumin ($C_{21}H_{20}O_6$) was first described in 1910 by Lampe and Milobedeska and shown to be diferuloylmethane. Turmeric is used as a dietary spice, coloring agent in foods and textiles, and a treatment for a wide variety of ailments. It is widely used in traditional Indian medicine to cure biliary disorders, anorexia, cough, diabetic wounds, hepatic disorders, rheumatism, and sinusitis. Turmeric paste in slaked lime is a popular home remedy for the treatment of inflammation and wounds. For centuries, curcumin has been consumed as a dietary spice at doses up to 100 mg/d. Extensive investigation over the last five decades has indicated that curcumin reduces blood cholesterol. (Aggarwal et al., 2006).

COST ESTIMATION

Plant Capacity	30.00 Kgs/day
Land & Building (1000Sq.Mt)	Rs. 1.36 Cr
Plant & Machinery	Rs. 1.20 Cr
W.C. for 2 Months	Rs. 66.89 Lacs
Total Capital Investment	Rs. 3.30 Cr
Rate of Return	25%
Break Even Point	56%

PHTHALIC ANHYDRIDE

[CODE NO. 2080]

Phthalic anhydride is an industrially important raw material for the production of anthraquinone used in the manufacture of many vat dyes and in alizarin and alizarin derivatives. It is used directly for the fluorescein, eosine, and rhodamine dyes. Several esters are made from phthalic anhydride and are largely used in the lacquer industry as plasticizers. It is also used to manufacture alkyd resins, the glyptal and rezyr resins, dioctyl phthalate and the poly-vinyl resins. Phthalic anhydride, first discovered by Laurent in 1863, was originally prepared by the oxidation of naphthalene with chromic acid. The early methods of manufacture of phthalic anhydride involved liquid phase processes in which expensive nitric and chromic acids were used as the oxidizing agents. The growing demand for phthalic anhydride as an intermediate for dye manufacture in the latter part of the nineteenth century made it imperative that cheaper means for its production be obtained. Consequently, a method of oxidizing naphthalene by

sulfuric acid in the presence of mercury salts to form phthalic anhydride was developed. The discovery of the effectiveness of the oxides of the metals of the fifth and sixth groups of the periodic table, especially of vanadium and molybdenum oxides, in the vapor phase oxidation of naphthalene by air led to the present production on a large commercial scale, of phthalic anhydride in either fixed or fluidized bed reactors.

COST ESTIMATION

Plant Capacity	10.00 MT./day
Land & Building (6000Sq.Mt)	Rs. 3.28 Cr
Plant & Machinery	Rs. 4.50 Cr
W.C. for 2 Months	Rs. 2.45 Cr
Total Capital Investment	Rs. 10.68 Cr
Rate of Return	14%
Break Even Point	68%

SERVICE APARTMENT

[CODE NO. 2078]

A serviced Apartment is a type of furnished, self contained apartment designed for short term stays. Serviced apartments usually come equipped with amenities that can be found in a regular home, such as a refrigerator, microwave, cutlery, washer/dryer. TV, and internet access. In addition, many offer a dining area and a dedicated work space. Prices for serviced apartments are typically lower than equivalent hotels rooms, especially when the stay is prolonged. The concept of a luxurious and sophisticated apartment in the heart of the central business district, with cleaning services and access to high class facilities and amenities is nothing new, but recently the service apartment, with its superior features and lower costs, is increasingly becoming the norm in Asia. Luckily in India, in the real estate sector this concept of "Serviced Apartment" is gaining momentum which is evident from the fact that the real estate developers in almost all the big towns of India have now started constructing serviced apartments.

COST ESTIMATION

Land & Building (1600Sq.Mt)	Rs. 21.13 Cr
Plant & Machinery	Rs. 2.75 Cr
W.C. for 2 Months	Rs. 1.03 Cr
Total Capital Investment	Rs. 26.71 Cr
Rate of Return	18%
Break Even Point	57%

INSTANT TEA [CODE NO. 2077]

Extraction may be effected by a variety of method among which counter current extraction and percolation methods have been widely used.

COST ESTIMATION

Plant Capacity	2.50 MT/day
Land & Building (4000Sq.Mt)	Rs. 1.86 Cr
Plant & Machinery	Rs. 10.00 Cr
Total Capital Investment	Rs. 15.39 Cr
Rate of Return	33%
Break Even Point	49%

Patrons, deposit amount in
EIRI Account
HDFC BANK CA-05532020001279
(RTGS/NEFT/IFSC Code: HDFC0000553)

Best Industries to Start and Grow

CALCIUM CHLORIDE USING LIME STONE AND HYDROCHLORIC ACID [CODE NO. 2076]

Calcium chloride is widely distributed in nature, but in small concentration, as a constituent of saline matter dissolved in sea, spring, river and lake, waters. Deposits of tachydrate calcium chloride do not occur in India. Calcium chloride is a compound of calcium and chlorine, widely used in industry as an addition in drinking water, anti-dust treatment of roads, sports ground, tennis courts, tiding trades, public squares, building yard, road stabilization etc. It can be prepared by the reaction with Hydrochloric acid and lime stone, saline water with lime stone by reaction with hydrated lime and chlorine etc. Large quantities of calcium chloride are present in the distiller waste of the ammonia soda process for soda and manufacture for every ton of soda ash produced, one ton of calcium chloride is obtained. The composition of the waste liquor varies according to the quality of brine and lime stone used, the volume of feed liquor to be distilled per ton of ash, the percentage decomposition in the towers, and the strength of milk of lime employed. Normally, 10-12 cum of waste liquor containing 85-95 g/litre. of calcium chloride are obtained per ton of soda ash.

COST ESTIMATION (US\$)

Plant Capacity	480 Ton/day
Land & Building (50,000Sq.Mt)	US\$ 48.55 Lacs
Plant & Machinery	US\$ 2.11 Cr
W.C. for 2 Months	US\$ 50.35 Lacs
Total Capital Investment	US\$ 3.14 Cr
Rate of Return	15%
Break Even Point	68%

GINGER GARLIC PASTE [CODE NO. 2075]

Garlic & Ginger paste are very versatile products which are used extensively in Food Industries. Garlic is one of the important species coming into Allium group, whose botanical name is A. Sativum. A hardy perennial, c60 cm in height, native to Central Asia and cultivated all over India. Bulbs made up of cloves; leaves long, flat, acute, sheathing the lower half of stem; scape slender, smooth, shining, spathes long, beaked, enclosing heads bearing solid bulbils; flowers small, white, prolonged into leafy points. History and Origin:- Garlic is native to the mountainous regions of central Asia from where it spread in prehistoric times to the mediterranean region. Clay models of garlic have been excavated in Egypt. It reached China at an early age and was probably carried to the western hemisphere by the Spanish, the Portuguese, and the French. It has been

suggested that the wild ancestor of garlic was a flowering form producing seeds on aerial bulbils. Under different soil and climatic conditions, and due to different methods of cultivation in the ancient centres of civilization different varieties arose. The non-flowering varieties are thought to have arisen as a result of interference with the natural life cycle caused by storage.

COST ESTIMATION

Plant Capacity	500 Kgs/day
Land & Building (500Sq.Mt)	Rs. 54.00 Lacs
Plant & Machinery	Rs. 12.00 Lacs
W.C. for 1 Month	Rs. 9.59 Lacs
Total Capital Investment	Rs. 79.59 Lacs
Rate of Return	33%
Break Even Point	60%

S.S. NEEDLES FOR MEDICAL & OTHER USES (HYPODERMIC NEEDLES) WITH DISPOSABLE SYRINGE PLANT (ALL SIZE) [CODE NO. 2074]

Syringe is an instrument which is used for injecting any liquid into the body of human beings or of animals. It consists of a cylinder and an air tight piston. These syringes are used for injecting the medicine into the body or into the nerve of the body which are not possible to take in through mouth or takes much time in mixing with blood. These syringes are available in sizes varying from 2 C.C. to 100 C.C. Most popular and commonly used sizes are 2 C.C., and 5 C.C. Other sizes are also frequently used but upto lesser extent. Previously glass was used for making these syringes, the most commonly used glass is Pyrex glass.

COST ESTIMATION

Land & Building (3500Sq.Mt)	Rs. 5.80 Cr
Plant & Machinery	Rs. 2.68 Cr
W.C. for 2 Months	Rs. 1.83 Cr
Total Capital Investment	Rs. 10.71 Cr
Rate of Return	34%
Break Even Point	47%

WOODEN TOYS [CODE NO. 2073]

Wooden toys not only appeal to children for play, but also to adults for home and office decorations. Manufacturing wooden toys is a wonderful home based business opportunity that can be activated for peanuts and has the potential to return big profits. Marketing the toys can be accomplished by way of wholesale sales to merchants, the internet, mail-order catalogs, craft shows, mall kiosks and home shopping parties. Traditionally, popular wooden toys include trains, jigsaw puzzles, cars, numbered building blocks and wooden soldiers. But that's just the tip of the iceberg. The only limitation to the different kinds of wooden toys that can be designed and manufactured is your own imagination. Additionally, approach local building and home

improvement centers to see if they'll let you set up a mini-manufacturing facility right in their store. If this can be accomplished, it would be a great marketing tool to be able to build the toys in front of a live audience. The requirements for type of woodworking business enterprise are relatively basic, and include woodworking skills and a well-equipped woodworking shop.

COST ESTIMATION

Plant Capacity	2,50,000 Nos.
Land & Building	Rs.1.40 Cr
Plant & Machinery	Rs. 40.00 Lacs
W.C. for 2 Months	Rs. 29.87 Cr
Total Capital Investment	Rs. 2.16 Cr
Rate of Return	19%
Break Even Point	67%

TEXTILE BLEACHING, DYEING, FINISHING & PRINTING [CODE NO. 2072]

The bleaching of the textile is done to bring the whiteness and finishing in the fabric where as dyeing for various shades. The art lies in colouring the textiles in such a manner that the colour may be fast or may not ordinarily be removed by such operations as washing, rubbing, sunlight etc. to which the textile are usually subjected. The art of dyeing is a branch of applied chemistry in which a severe use of both physical and chemical principle is made in order to bring about a permanent union between the dyes and the fibres. True dyeing can only take place when the dyeing is in solution and/or finally divided or dispersed colloidal condition and the fibers are subjected to this dye in solution condition and then this dye being rendered insoluble or fixed by some means, when absorbed upon or within the fibers, or can be direct contact with the fibers.

COST ESTIMATION

Plant Capacity	5.00 MT/day
Land & Building(4000SMtr)	Rs.2.10 Cr
Plant & Machinery	Rs. 95.00 Lacs
W.C. for 2 Months	Rs. 55.00 Lacs
Total Capital Investment	Rs. 3.65 Cr
Rate of Return	21%
Break Even Point	61%

START YOUR OWN HAIR SHAMPOOS AND CONDITIONERS WITH MANUFACTURING PROCESSES & FORMULATIONS WITH PACKAGING TECHNOLOGY



Book cover Various Shampoos, Hair Shampoos with Manufacturing, Process and Formulae (Shampoo Pastes, Creams & Powder), Liquid Creams or Lotion Shampoos, Formulation for Hair Rinses, Anti Dandruff Preparations

(Hair Grooming Preparations and Alcoholic Lotions), Brilliantines Manufacture and Formulae etc., Hair Tonics etc. etc.

Market Survey Cum Detailed Techno Economic Feasibility Reports



- * EIRI Project Reports are prepared by highly qualified & experienced consultants & Market Research and Analysis supported by a panel of Experts and Computerised.
- * Data provided are reliable and up to date collected from manufacturers/suppliers, plant already commissioned in India.

A complete List of Industrial Project Reports are given on www.eiribooksandprojectreports.com

EACH DETAILED PROJECT REPORT CONTAINS:

- **INTRODUCTION** : Project Mix, Uses & Applications, Quality Control Measure & Their Introduction for Attaining Required Properties Economy & Productivity Competence.
- **MARKET SURVEY** : Market Position, Installed Capacity Production, Anticipated Demand, Present Manufacturers, Statistics of Imports & Exports, Estimated Demand, Demand & Supply Gap (If available), LI/IL Issued Recently
- **PROCESS OF MANUFACTURE** : Inventory Controls & Tests, Comparative Study of Process for Manufacturing the Product, Formulations, Process Flow Sheet Diagram, Process Detail in Stages from Raw Materials to Finished Products
- **RAW MATERIALS** : Raw Material Specifications, Market Codes & Raw Material Prices, Sources of Procurement of Raw Materials [Imported/Indigenous]
- **PLANT & MACHINERY** : Range of Machineries Required, Detailed Specifications of Machines & Equipments, Prices of Machineries, Suppliers of Plant and Machineries.
- **LAND & BUILDING** : Total Land Area Requirement with Rates, Covered Area Break-up with Estimated Costs of Construction
- **PROJECT ECONOMICS** : Land & buildings, Plant, Machinery & Other Fixed Assets, Total Capital Investment, Working Capital Assessment, Raw Material & Consumable Stores, Staff Salaries & Wages, Utilities & Overheads, Total Cost of Project, Sources of Finance/Refinance, Break Even Point Determination.

For assessing Market Potential, Corporate Diversifications, Planning, Investment Decision Making and to start your own setup, Entrepreneurs and Industrialists are most welcome to contact EIRI.

EIRI Technocrats and Engineers have just prepared
"MARKET SURVEY CUM DETAILED TECHNO ECONOMIC FEASIBILITY REPORTS"
 on following lucrative products which are most viable and profitable and having bright future scope

* COPPER SULPHATE FROM COPPER ASH/SCRAP
 CHELATED ZINC (ZN-EDTA) 12%
 * ORTHOPAEDIC IMPLANTS AND INSTRUMENTS
 BARLEY MALT
 * MINERAL TURPENTINE OIL (M.T.O.) FROM PETROLEUM (SUPERIOR KEROSENE OIL OR OTHER MATERIAL)
 * M.S.FASTENERS AND S.S. FASTENERS
 * P.V.C. COMPOUNDING (FRESH) FOR CABLES AND PVC PIPES
 * BANANA FIBRE EXTRACTION AND HAND MADE PAPER BANANA & ITS BY PRODUCTS
 * COLOUR AND ADDITIVES MASTERBATCHES
 * METALLIC STEARATE
 * SURGICAL METHYLATED SPIRIT
 * KHADSARI SUGAR (500 TCD)
 * COTTON (RUI) FROM WASTE

COTTON CLOTH
 * LAUNDRY & DRY CLEANERS
 * COATED YARN
 * TOUGHENED GLASS
 * CAUSTIC SODA (SODIUM HYDROXIDE) (NaOH) ELECTROLYTIC PROCESS
 * PLASTIC WASTE RECYCLING UNIT & PYROLYSIS PLANT FROM PLASTIC AND RUBBER WASTE (INTEGRATED UNIT)
 * CHITIN & CHITOSAN FROM PRAWN SHELL WASTE
 * PASTA PRODUCTION PLANT (SHORT PASTA)
 * SODIUM HYDRO SULFITE THROUGH FORMALDEHYDE ROUTE CAP-20 TPD
 * SODA ASH PLANT FROM SOLVAY PROCESS
 * ONION, AND GARLIC POWDER WITH GRAPE DEHYDRATION (RAISINS)
 * FLUSH DOORS
 * DI-METHYL PHTHALATES (DMP)
 * GLUTEN FREE BEER

Avail One Free Copy of HI-TECH PROJECTS
 Industrial Monthly Magazine
 by Email, Contact at:
eiriprojects@gmail.com
eiribooks@yahoo.com

* PVC AND PP FILES AND FOLDERS
 * SULFAMIC ACID PURE CRYSTAL AND OTHER GRADE (GP,SR & TM GRADE)
 * DECORATIVE LAMINATED SHEET (SUNMICA)
 * ALPHA CELLULOSE POWDER FROM COTTON WASTE
 * CAST POLY PROPYLENE FILMS (CPP FILM)
 * CASHEW NUT PROCESSING
 * BIOGAS PRODUCTION (1500 CUBIC METER PER DAY)
 * SOYA MILK AND PANEER
 * MINERAL TURPENTINE OIL (MTO)



EIRI is an expert Industrial Consultant working over 35 years and specialized to prepare all types of Detailed Project Reports based on clients requirements. Do Contact Today at: eiritechnology@gmail.com

Highly Profitable Projects for New Entrepreneurs

“EIRI Market Survey Cum Detailed Techno Economic Feasibility Reports”

<ul style="list-style-type: none"> * STEEL FABRICATION * STEEL ROLLING MILL (REINFORCEMENT BAR) * ACRYLIC BATH TUB BY ACRYLIC SHEET * FABRICATION OF HEAT EXCHANGER * KITCHEN PRODUCTS MADE OF STAINLESS STEEL * ALUMINIUM BEVERAGE CAN * STEEL ROLLING MILL (BY INDUCTION FURNACE FROM STEEL SCRAP & SPONGE IRON * M.S. BILLET CASTING WITH INDUCTION FURNACE FROM STEEL SCRAP & SPONGE IRON * PROCESSING OF LOW GRADE TUNGSTEN ORE FULL BODY & CHASSIS BUS PLANT * ASSEMBLY OF AIR – CONDITIONER/CHEST FREEZER/REFRIGERATOR * G.I.LADDER & PERFORATED TRAYS * ALUMINIUM DOORS & WINDOWS (ALUMINIUM FABRICATION) * LEAF SPRINGS FOR TRACTOR DRAWN TROLLEYS & FOUR WHEELER TEMPOS * STEEL BRIGHT BARS * AUTOMOTIVE ENGINE VALVE * AUTOMOTIVE BRAKING SYSTEM * DISPLAY COOLER * ERW STEEL PIPES & TUBES * STEEL INGOTS * TMT STEEL BARS (SARIYA) * AUTOMOBILE TRACTORS * ACTIVATED ALUMINA BALLS * ALUMINIUM FOIL * STONEWARE PIPE (S.W.PIPE)/ CLAY PIPE * IRON ORE PELLETIZATION * ELECTRIC CONTROL PANEL * SOLAR PV POWER PLANT * MACHINE SHOP (FOR OIL AND GAS ENGINEERING INDUSTRY, AEROSCAPE ENGINEERING INDUSTRY) * STEEL BRIGHT BARS * CEILING FAN * COPPER STRIP COILS FROM SCRAPS * PRODUCTION OF PV PANELS (SOLAR PV PANELS) * ROTARY AIR LOCKS, SCREW CONVEYOR, MOTORIZED/ PNEUMATIC DAMPER, FLAP VALVES, AIR SLIDES REQUIRED IN CEMENT PLANTS AND THERMAL POWER PLANT * ALUMINIUM EXTRUSION 	<ul style="list-style-type: none"> * ALUMINIUM COIL COATING FOR ACP AND ROOFING IND. * PAVING BLOCK * WIRE NAILS * TMT STEEL BARS * FASTENERS/NUT & BOLTS (INDUSTRIAL & AUTOMOBILE) * HYDRAULIC CYLINDERS * DISPOSABLE SYRINGES WITH NEEDLE PLANT * FABRICATION UNIT (PRESSURE VESSEL, REACTOR VESSEL & AGITATORS, HEAT EXCHANGERS) & SEAMLESS PIPES AND TUBES * COPPER POWDER FROM COPPER SCRAP * STONE CRUSHER * PRODUCTION OF ALL TYPES OF FANS SUCH AS AXIAL FANS, CENTRIFUGAL FANS (SMOKE EXTRACT FANS & FRESH AIR SUPPLY FANS), BATHROOM FANSETC. * STONE MINING * MAHINDRA CAR DEALERSHIP WITH AUTOMOBILE SERVICE STATION/GARAGE * AUTO FILTERS (AIR FILTERS, OIL FILTERS & FUEL FILTERS) * AAC & ACSR ALUMINIUM CONDUCTORS * MANGANESE ORE JIGGING * STEEL TRANSMISSION LINE TOWERS AND ROLLING MILL TO PRODUCE STEEL SECTIONS * FERRO SILICON (FROM MINERAL INGREDIENTS) STAINLESS STEEL TUBES * M.S.FASTENERS AND S.S. FASTENERS * PREFABRICATED STEEL FRAMED BUILDING MANUFACTURING PLANT * LEAD ACID BATTERY * GALVANISED WIRE * POWER TRANSFORMER (50 KVA TO 2000 KVA) * M.S. PIPE * GALVANISED IRON SHEETS * M.S.BILLETS * STEEL GRATING (GALVANISING ELECTRO FORGED STEEL GRATING) * ALLOY WHEELS PLANT * ESTABLISHMENT OF MANUFACTURING OF REFRIGERATING APPLIANCE * WELDED WIRE MESH * ALUMINIUM COLD ROLLING MILL FOR SHEETS & CIRCLES * ALUMINIUM ROLLING MILL FOR MANUFACTURING ALUMINIUM CIRCLES 	<ul style="list-style-type: none"> REQUIRED FOR PRESSURE COOKERS, NON STICK COOKWARES & CIRCLES * LPG CYLINDER * ALUMINIUM COMPOSITE PANNELS * DEEP FREEZER * ENVIRONMENTAL CLEARANCE FOR EXPANSION OF INGOTS/ BILLETS PLANT * FERRO SILICON BY SMELTING PROCESS * ALUMINIUM CONDUCTOR * PRESTRESSED CONCRETE POLES * FASTENERS (NUT & BOLT) USED IN OIL AND GAS * ALUMINIUM ALLOY PLANT * STAINLESS STEEL SINKS * ALUMINIUM ALLOY PLANT * P.V.C BATTERYSEPARATOR * AUTOMOTIVE TYRE AND TUBE VALVES (VALVES MANUFACTURING) * PRESSURE COOKWARE ALUMINIUM, STAINLESS STEEL & HARD ANODIZED * ELECTRIC WATER HEATER * SOLAR WATER HEATER DOMESTIC & INDUSTRIAL * CORRUGATED COLOURED ROOFING GALVANISED IRON SHEET * PRESSURE DIE CASTING * G.I.WIRE AND BARBED WIRE * G.I.WIRE & M.S. BINDING WIRE * HOT DIP GALVANIZING PLANT FOR STRUCTURAL STEEL AND PIPES * COLD ROLLING MILL * DOOR HINGES (MILD STEEL AND STAINLESS STEEL) * PRESSURIZED AEROSOLS (LIKE BODY SPRAYS, PERFUMES, SHAVING FOAM AND SHAVING LOTIONS ETC.) * ANHYDROUS SODIUM DITHIONITE PRODUCTION (SODIUM FORMATE PROCESS) * SODA ASH PLANT (FROM SOLUTION BRINE) * SISAL FIBRE REINFORCED * CEMENT ROOFING SHEET * HIGH ALUMINA REFRACTORY BRICK PLANT * CATHETERS MANUFACTURING * SURGICAL RUBBER DISPOSABLE GOODS 	<ul style="list-style-type: none"> * POULTRY AND HATHERY FARMING * MILK PROCESSING PLANT * ROASTED, SALTED ALMONDS, PEANUTS FOR PACKING IN 25g, 50g, 250g & 500g SACHET-S * BEER FROM POTATOES * GUAR GUM POWDER * AUTOMATIC WHITE BREAD MAKING PLANT * AUTOMATIC BISCUIT MAKING PLANT * FROZEN FOOD BY IOF TECHNOLOGY * WALNUT PROCESSING PLANT * WHIPPING CREAM FRUITS & VEGETABLES POWDER UNIT (EXPORTS ORIENTED UNIT) * NATURAL MEDICINE & RESEARCH INSTITUTE WITH 150 BEDS HOSPITAL * PACKAGED DRINKING WATER (PACKED IN 330 ml CUP, 500ML BOTTLE, 1500 ML BOTTLE AND 20 LTR. JAR) * COLD STORAGE (CONTROLLED ATMOSPHERE OR CA) FOR POTATO CAP: 1,00,000 BAGS (50 Kg/Bag), STORING CAP: 5000 Mt, SOLVENT EXTRACTION & REFINING (SOYABEAN) (Cap- 250mt/day & 50mt/Day oil Refining) * BOTTLING PLANT (WHISKY, BRANDY, RUM, VODKS, GIN) FROM RECTIFIED SPIRIT/ENA LUBE OIL BLENDING AND GREASES PLANT * COLD STORAGE FOR POTATO 1,00,000 BAGS (50 KG/BAG) * MAIZE FLOUR & BY PRODUCT MANUFACTURING PLANT * CUT FLOWER (GLADIOLI, MARIGOLD, STATICE, CHRYSANTHEMUM ROSE WITH GREEN HOUSE) * CATTLE FARMING AND DAIRY PRODUCTS * COLD STORAGE FOR POTATO AND OTHER HORTICULTURE PRODUCTS Cap:- 5000 Mt or 100000 Bags (50 Kg/Bag) * DEXTROSE PLANT * SBR RUBBER SHEETS AND SHOE MANUFACTURING * CASHEW NUT PROCESSING * PLYWOOD AND PLYBOARD PARTICLE BOARD AND LAMINATED PARTICLE BOARD * VENEER MAKING, PLYWOOD & PLYBOARD MAKING * WALNUT & PINUS(CHILGOZA) OIL, SHELL POWDER PROCESSING PLANT * COUNTRY LIQUOR BOTTLING PLANT (1,00,000 BOTTLES/ DAY)
--	---	--	--

<ul style="list-style-type: none"> * PLASTIC GRANULES FROM PLASTIC WASTE * ROPE AND SUTLI MAKING PLANT * BOTTLING PLANT (COUNTRY LIQUOR) 10,000 LTRS./DAY) * I.V. FLUID (FFS OR BFS TECHNOLOGY) * TOXIN PAN MASALA, TOBACCO LESS GUTKHA AND ZARDA * RUBBER & FLAT TRANSMISSION BELT CONVEYOR BELT * UPVC DOORS & WINDOWS FABRICATING PLANT (Fixing and Installation of Door and Windows of uPVC profiles) * RUBBER & FLAT TRANSMISSION BELT CONVEYOR BELT * MUSTARD OIL PROCESSING PLANT (EXPPELLER PROCESS) * MEDICAL COLLEGE WITH 750 BEDS HOSPITAL FACILITY * MICRO IRRIGATION PRODUCT MANUFACTURING PLANT * HOT DIP GALVANIZING MUSTARD OIL PROCESSING PLANT (EXPPELLER PROCESS) * CEMENT TILES, CANAL LINE SLAB, KERV STONE, PAYER RCC PIPE, MANOHOLE COVER,ENTERLOCKING ETC. MANUFACTURING PLANT * MEDICAL COLLEGE (100 STUDENT INTAKE CAP. MEDICAL COLLEGE WITH 500 BED HOSPITAL) * ESTABLISHMENT OF A PRIVATE UNIVERSITY * DIGITAL INKS * GALVANIZING PROCESS PLANT FOR ELECTRICAL POLES * MAIZE PROCESSING PLANT * STARCHES / MODIFIED STARCHES/ LIQUID GLUCOSE / DEXTROSE MONOHYDRATE /GLUCOSE SYRUPS / CORN SYRUP SOLIDS / HIGH MALTOSY CORN SYRUPS / MALTO DEXTRINE POWDER / CORN GLUTEN MEAL (60%) MAIZE OIL / SORBITOL. * BABY CARE PRODUCTS * FAT LIQUOR (CHLORINATED PARAFFIN WAX) * BOTTLING OF WHISKY * UPVC DOORS & WINDOWS PROFILES * EPDM RUBBER PROFILES * FAT LIQUOR (CHLORINATED PARAFFIN WAX) * FAST FOOD RESTAURANT WITH CENTRALISED KITCHEN 	<ul style="list-style-type: none"> * READY MADE GARMENT (T-SHIRT/POLO GOLFER/ WOVEN SHIRTING & SUITING FOR UNIFORMS/SWEATERS) MANUFACTURING * BIO-DIESEL EXTRACTION FROM JATROPHA, SOYABEAN, SUNFLOWER, RICE BRAN, ALGE & CULTIVATION OF JATROPHA * FAST FOOD RESTAURANT CHAIN WITH CENTRALISED KITCHEN * GUAR SPLIT POWDER AND OTHER BY PRODUCTS * SOLVENT EXTRACTION PLANT (COTTON SEED) * RASGULLA MANUFACTURING AND CANNING * CULTIVATION OF RICE & WHEAT COMMERCIAL & MECHANISED DEVELOPMNT * MAIZE & BY PRODUCTS PROCESSING -STARCH MODIFIED STARCHES/LIQUID GLUCOSE/DEXTROSE MONOHYDRATE/GLUCOSE SYRUPS/CORN SYRUP SOLIDS/HIGH MALTOSY CORN SYRPS/ MAITO DEXTRINE POWDER/CORN GLUTEN MEAL (60%) MAIZE OIL/SORBITOL * TEAK FARMING * ARTIFICIAL MARBLE (SYNTHETIC) * POTATO STARCH CARDANOL FROM C.N.S.L. (CASHEWNUT SHELL LIQVID * INTEGRATED SCRAP YARD * POTATO STARCH * MANGO PULP (5 TON/HOUR 200 KG ASEPTIC PACKAGING) * BOTTLING PLANT (WHISKY, BRANDY, RUM, VODKA, GIN) FROM RECTIFIED SPIRIT/ENA * COW DAIRY FARMING (AYRSHIRE/HOLSTEIN) AND MILK PROCESSING MILK/DAY CAP-50,000 LTR/DAY * WHEAT FLOUR MILL * CHAKKI FLOUR MILL * I.V. FLUID (FFSTECHNOLOGY) * LIQUID GLUCOSE FROM POTATOES * SORBITOL FROM MAIZE STARCH * WALNUT PROCESSINGPLANT * SOLVENT EXTRACTION AND OIL REFINERY CUM PACKING OF RICE BRAN OIL * COTTON SEED OIL SOLVENT EXTRACTION PLANT * MARINE TRAINING INSTITUTE & PLACEMENT SERVICE PROVIDING AGENCY * I.V.FLUID (FFS TECHNOLOGY) * CERAMIC FIBERS, CERAMIC 	<ul style="list-style-type: none"> FIBRE BLANKET, CERAMIC FIBRE BOARD AND CERAMIC FIBRE ROPE * COLD SUPPLY CHAIN * LAMI TUBE MANUFACTURING * EYE DROP 3 PIECES (PLASTIC VIALS) * PET BOTTLES (CAMBER/ CLEAR IN COLOUR) CAP: 15ML,60ML 100ML,135ML, 200ML & 500ML * BENZYL ALKONIUM CHLORIDE (BKC) * NATURAL SUGAR WAX * MARGARINE BUTTERFROM VEGETABLE OIL * GREEN HOUSE FOR CROP PRODUCTION * ORGANIC DAIRY FARMING * E-WASTE * BIO-DIESEL FROM ALGAE * VANADIUM PENT OXIDE GRAPHITE MINING AND BENEFICIATION PLANT * VITAMIN WATER * PET PREFORM CUM PET BOTTLES * ORGANIC DAIRY FARMING AND PRODUCING WHOLE MILK POWDER (WMP) * HDPE BOTTLES * CAUSTIC SODA FROM SODIUM CHLORIDE * COAL TAR PITCH * MOSQUITO REPELLANT * WRIST BAND * CASTOR OIL AND ITS DERIVATIVES OLEO RESIN, TURKEY RED OIL, DCO, HCO, SEBACIC ACID, 12-HYDROXY STEARIC ACID * PAPAIN FROM PAPAYA * PROCESSED CHEESE * MONOCHLOROBENZENE * EUGENOL FROM CINNAMON OIL * SULPHUR 80% WDG * CERAMIC FIBERS, CERAMIC FIBRE BLANKET, CERAMIC FIBRE BOARD AND CERAMIC FIBRE ROPE * SCREEN PRINTING * DI CALCIUM PHOSPHATE FROM ROCK PHOSPHATE & HAIFA PROCESS * PVC FLEXIBLE PIPE * FLEX BANNER USED IN DIGITAL PRINTING * PIGMENTS BINDERS FOR TEXTILE PRINTING * POULTRY & HATCHERY FARM * ALOEVERA JUICE AND GEL * LIME PUTTY * AUTOMOBILE WORKSHOP/ GARAGE * EGG TRAY FROM PULP * CARDANOL FROM C.N.S.L. * OXYGEN GAS 	<ul style="list-style-type: none"> * POLYALUMINIUM CHLORIDE * NAMKEEN INDUSTRY (BHUIJA, CHANACHUR ETC.) * POLYOL USED FOR POLYURETHANES * POLYSTYRENE POLY PROPYLENE OXIDE * DIETHYL PHTHALATE * UREA FORMALDEHYDE AND MELAMINE * FORMALDEHYDE MOULDING POWDER * INSTANT COFFEE * ANNATTO SEED COLOUR EXTRACTION * FRUITS AND VEGETABLES DRYING BY (FREEZE DRYING METHOD) * BIO GAS PRODUCTION AND BOTTLING PLANT * JAM, JELLIES, FRUIT JUICE AND ALLIED PRODUCTS * MATERNITY NURSING HOME * CANNING & PRESERVATION OF VEGETABLES * CURCUMIN & TURMERIC OIL FROM TURMERIC * DETERGENT WASHING POWDER (ARIEL TYPE) * GRANITE SLAB AND TILES * TEA PACKAGING * PAN MASALA & GUTKHA * PRESTRESSED CONCRETE ELECTRIC POLES * LEATHER SHOES * ROTOGRAVURE PRINTING (FOR FLEXIBLE PACKAGING) * AUTOCALVED AERATED CONCRETE BLOCKS * OXYGEN AND NITROGEN GAS PLANT * MANGANESE ORE BENEFICATION * MINERAL WOOL * CALCIUM SILICATE * TOUGHENED GLASS * HUMIC ACID * OFFSET PRINTING UNIT (5 COLOUR) * CASTOR OIL AND ITS DERIVATIVES OLEORESIN * TISSUE PAPER PULPING FROM SAW DUST * KNITTED GLOVES * RADIATOR COOLANT * LATEX FOAM RUBBER (SPONG RUBBER) * GARLIC OIL AND POWDER * ACTIVATED CARBON & SODIUM SILICATE FROM PADDY/ RICE HUSK * TRIETHYLENE GLYCOL * RAMMING MASS * WOOD PEELING & VENEER MAKING * PETROLEUM JELLY * DAIRY FARM (COW & BUFFALO) TO PRODUCE
--	---	--	--

Market Survey Cum Detailed Techno Economic Faeasibility Report on all Projects are available contact:

ENGINEERS INDIA RESEARCH INSTITUTE

4449, Nai Sarak, Main Road, Delhi - 110 006 (India) * Ph. : +91 9811437895, 9811151047, 91-11-23918117, 23916431, 23947058, 45120361
Email: eiritechnology@gmail.com, eiriprojects@gmail.com Website: www.eiriindia.org, www.eiribooksandprojectreports.com

Hi-Tech Projects,Oct'18, www.eiriindia.org # 13

Highly Profitable Projects for New Entrepreneurs

“EIRI Market Survey Cum Detailed Techno Economic Feasibility Reports”

<ul style="list-style-type: none"> MILK & PACKAGING IN POUCHES * CUTTING OIL LIQUID GOLD (IN PASTE FORM) * P.V.C. LEATHER CLOTH (REXINE) * COAL TAR DISTILLATION * ALUMINIUM LABEL PRINTING * FOLDING CARTNS/MONO CARTONS * SURGICAL DISPOSABLE GLOVES (DIPPED RUBBER GOODS) * AGRICULTURAL CHEMICAL (PLANT GROWTH PROMOTER AND PLANT GROWTH REGULATOR) * MENTHOL BOLD CRYSTALS FROM MENTHOL FLAKES * ORGANIC FARMING * CORRUGATED POLYCARBONATE SHEET * COLD STORAGE * FLAT PVC LAMINATED * SAFTY GLASS/TOUGHENED GLASS * PLASTIC GRANULES FROM WASTE * DRY WALL PUTTY (WHITE CEMENT BASED) * CHARCOAL BRIQUETTE * OXALIC ACID FROM MOLASSES * POTATO GRANULES * SANITARY NAPKINS & BABY DIAPERS * CORRUGATED BOXES * PLASTER OF PARIS * RUBBER ROLLER FOR PRINTING MACHINE * LACTIC ACID * EMERY PAPER (SAND PAPER) * RUBBER RECLAIM SHEET FROM USED BUTYL TYRE AND TUBE * MANGO PULP * PARTICLE BOARD FROM BAGASSE AND RICE HUSK * TOILET PAPER & NAPKINS * TENDER COCONUT WATER * CALCIUM CARBONATE * LIME CALCINATION PLANT * INJECTION MOULDED PLASTIC COMPONENTS * HYDRATED LIME * BLACK PEPPER * MULTIAXIAL GLASS FABRIC * LIQUID TOILET CLEANER (HARPIC TYPE) * LIME & PRECIPITATED * CALCIUM CARBONATE * LIQUID GLUCOSE FROM BROKEN RICE 	<ul style="list-style-type: none"> * MEDICAL DISPOSABLE PLASTIC SYRINGES * METAL POLISHING BAR * SANITARY NAPKINS & BABY DIAPERS * PERFUMES/ATTAR * GEMS AND JEWELLERY * MULTIAXIAL GLASS FABRIC * ACTIVE ZINC OXIDE * COPPER PHTHALOCYANINE * TURMERIC OIL EXTRACTION FROM DRY TURMERIC * CNSL BASED RESIN IN LIQUID & POWDER FORM * BOPP FILM * BETA IONONE * BIO-FERTILIZER * ZINC & COPPER SULPHATE * PAPER BASED PHENOLIC SHEET (FOR ELECTRICAL APPLIANCE) * THINNERS (WHITE SPIRIT BASED) * SINGLE SUPER PHOSPHATE & SULPHURIC ACID * MONO CALCIUM PHOSPHATE & DI-CALCIUM PHOSPHATE * FLEXIBLE P.U. FOAM * ASPIRIN * SORBITOL FROM MAIZE STARCH * SPICE OIL & OLEORESIN * ANTI-FOAMING AGENT (SILICONE BASED) FOR DISTILLERY, SUGAR, PAPER PLANT ETC. * LAUNDRY & DRY CLEANER * BRICKS FROM STONE DUST * CARBOXY METHYL STARCH * TITANIUM DIOXIDE * UNDECYENIC ACID * PSA BASED NITROGEN GENERATOR * SYNTHETIC IRON OXIDE * PVC INSULATION TAPE * TAMARIND KERNEL POWDER * ORGANIC CHEMICAL & SOLVENTS * PLASTICIZERS * ICE PACK (SOLUTIONS TYPE, VIOLET-SEMI SOLID POLYMER TYPE) * GUM FROM TAMARIND * PEARL SUGAR CANDY (MISHRI) * GOAT & SHEEP FARMING * GYPSUM PLASTIC BOARD (AUTOMATIC PLANT) * NON-WOVEN INDUSTRY (CARRY BAGS, SURGICAL GOWN, FACE MASK, ROUND CAPS, SHOE COVER, GLOVE) * COTTON SPINNING, SIZING, 	<ul style="list-style-type: none"> YARN, DYEING & WEAVING * CALCIUM CHLORIDE * AMINES & ALLIED PRODUCT * SPINNING COTTON * SILICONE FROM RICE HUSK * ADHESIVE (FEVICOL TYPE) * CAUSTIC SODA FROM ELECTROLYSIS * CAMPHOR TABLETS * CERAMIC GLAZED WALL AND FLOOR TILES * ZINC SULPHATE MONO * ETHANOL (BIO FUEL) FROM RICE STRAW * GYPSUM MOULDING AND GYPSUM BOARD * SMOKELESS COAL * ACID (SILICA) AND BASIC RAMMING MASS * UNSATURATED POLYESTER RESINS * DAIRY (BUFFALO) FARMING * SILICONE FROM RICE HUSK * N-ACETYL THIOZOLIDINE-4-CARBOXYLIC ACID (NATCA) * PE BASED CARBON BLACK COMPOUND * ONION DEHYDRATION * PVC PIPES & FITTING * GLASS REINFORCED * GYPSUM MOULDINGS * ABSORBENT COTTON & SURGICAL BANDAGES * CALCIUM STEARATE BY FUSION PROCESS * MANGO POWDER & OTHER FREEZE DRIED PRODUCTS * MENTHOL OIL FROM LEAVES AND MENTHOL * CRYSTALS (PEPPERMINT) * MANUFACTURE OF CELLULOSE ACETATE * ANTIFOAMING / DEFOAMING AGENT * ALOEVERA CULTIVATION & PROCESSING * SYNTHETIC MAGNESIUM SILICATES * EPHEDRINE * HYDROCHLORIDE * ACTIVATED BLEACHNG EARTH * TECHNICAL TEXTILES * FORMALIN FROM METHANOL * CATIONIC SOFTNER (STEARIC ACID BASED) * PRECIPITATED SILICA * PU BASED FOOT WEARS * FORMALDEHYDE RESIN (UREA, PHENOL, MELAMINE) * HDPE MONO FILAMEN NET * POTATO & ONION FLAKES 	<ul style="list-style-type: none"> * DUSTLESS CHALK (SCHOOL CHALK) * TOMATO POWDER * BIODEGRADABLE / COMPOSTABLE PLASTICS * ACRYLIC CO POLYMER EMULSION * ESTER GUM (FOOD GRADE) * PROTEIN BASED FOAMING AGENT * LECITHIN (SOYA BASED) * SOYA OIL AND CATTLE FEED FROM SOYA BEAN * COMPARISON BETWEEN FLY ASH AND CELLULAR LIGHTWEIGHT CONCRETE (CLC) BRICKS * CELL CAST ACRYLIC SHEET * ACRYLIC BATH TUB AND SHOWER TRAY * THERMOCOKE BASED DISPOSABLE PLATES * SODIUM SILICATE FROM RICE HUSK * ETHYL METHACRYLATE * SODIUM LAURYL ETHER SULPHATE * LATEX GLOVES, CONDOMS & CATHETER * CALCIUM NITRATE * GRAIN BASED ALCOHOL DISTILLERY * BULK DRUGS * MARBLE QUARRYING * CULTIVATION OF CAPSICUM IN GREEN HOUSE * SULPHUR 90% WDG * EGG POWDER * WOOD PLASTIC * COMPOSITE BOARD LINE * SODIUM LAURYL SULPHATE AND SODIUM LAURYL ETHER SULPHATE * FISH PROCESSING * BABY CEREAL FOOD & MILK POWDERS (BABY FOOD) * GUR (JAGGERY) * DAIRY PRODUCTS * CHLORINATED PARAFFIN WAX (CPW) * HAND WASHING * DETERGENT POWDER USING THE DRY MIX PROCESS INCLUDING FORMULA OF DIFFERENT TYPES QUALITIES (LOW/ MEDIUM/HIGH COST) * HANDWASHING DETERGENT POWDER USING THE DRY MIX PROCESS INCLUDING
--	---	--	---

Market Survey Cum Detailed Techno Economic Faeasibility Report on all Projects are available contact:

ENGINEERS INDIA RESEARCH INSTITUTE

4449, Nai Sarak, Main Road, Delhi - 110 006 (India) * Ph. : +91 9811437895, 9811151047, 91-11-23918117, 23916431, 23947058, 45120361
Email: eiritechnology@gmail.com, eiriprojects@gmail.com Website: www.eiriindia.org, www.eiribooksandprojectreports.com

<p>FORMULA OF DIFFERENT TYPES QUALITIES (LOW/ MEDIUM/HIGH COST)</p> <ul style="list-style-type: none"> * DIGITAL PHOTOPAPER/ INKJET PHOTOPAPER * KAOLIN FOR ROAD MAKING * PEPPERMINT CULTIVATION & PROCESSING * PEPPERMINT CULTIVATION & PROCESSING * HDPE PIPE * ACTIVATED CARBON FROM RICE HUSK * HT & LT INSULATOR, HT AIR BRAKE SWITCH D.O. FUSE, LIGHTENING ARRESTOR * PET BOTTLES IN CAP: 500ML, 1 LTR, 2 LTRS, 5 LTRS, USED FOR PACKAGED DRINKING WATER, EDIBLE OILS * ALCOHOLIC BEVERAGES (COUNTRY LIQUOR & IMFL) * QUARTZ BASED INDUSTRIES (QUARTZ POWDER SILICA SAND SILICA RAMMING MASS FUSED SILICA) * BEEDI (BIDI) BY MACHINE * RICE SHELLER * FRUIT RIPENING CHAMBER * MINERAL WATER AND PET BOTTLING PLANT * DIAGNOSTIC LAB AND * ONLINE TRADING BUSINESS * CEREAL MILLING * MINI OIL PLANT SUITABLE FOR GROUNDNUT OIL AND COTTON SEED OIL * CHANACHUR, BHUJIA, GANTHA (AUTOMATIC PLANT) * KHADYA SURAKSHA (FOOD SECURITY) * PLASTIC WATER STORAGE TANKS * ZINC SULPHATE, MONOHYDRATE & HEPTA HYDRATE * CIGARETTE MANUFACTURING UNIT * CATTLE FEED PELLETS PLANT FOR COW & BUFFALOE FOR BOOSTING MILK AND GROWTH * TYRE RECYCLING UNIT * PAPAIN EXTRACTION INDUSTRY * CAKE SHOP * BUSINESS PROCESS 	<p>OUTSOURCE (B.P.O.)</p> <ul style="list-style-type: none"> * EMPTY HARD GELATINE CAPSULES * BIOFERTILIZER * PLASTIC MOULDING UNIT (CHAIR, TABLES & VEGETABLE TRAYS) * GOLD POTASSIUM CYANIDE (G.P.C.) * HDPE, PVC & CPVC PIPES AND FITTINGS * NO CARB PASTE (ANTICARBURIZING PASTE- WATER SOLUBLE) FOR HEAT TREATMENT * CONVERSION WASTE PLASTIC WITH TYRE INTO ACTIVATED CARBON AND INDUSTRIAL FUEL * PYROLYSIS PLANT FROM PLASTIC & RUBBER * COMPARISON BETWEEN FLY ASH AND CELLULAR LIGHTWEIGHT CONCRETE (CLC) BRICKS * AGAR AGAR * NAIL POLISH * PLASTIC GRANULES FROM WASTE * AGARBATTI SYNTHETIC PERFUMERY COMPOUNDS & AGARBATTI COMPOUNDS LIKE (CHAMPA, MOGRA, SANDAL WOOD & LOBAN) * PET PREFORM AND PET JARS (20 LTRS CAPACITY) * KRAFT PAPER FROM 100% WASTE PAPER * PRIVATE UNIVERSITY * LIQUID GLUCOSE AND MALTODEXTRIN FROM BROKEN RICE * DRY WALL PUTTY (WHITE CEMENT BASED) * CONSTRUCTION CHEMICALS OT PASTE * FUSED SILICA FROM SILICA SAND * BANANA CHIPS, BANANA PULP & BANANA POWDER (BANANA PRODUCTS) * CONFECTIONERY UNIT (TOFFEE, CANDY /LOLLIPOP CHEWING GUM, BUBBLE GUM CHOCOLATE) * FORMALDEHYDE RESIN (UREA, PHENOL, MELAMINE & THEIR MODIFIED RESINS) 	<ul style="list-style-type: none"> * EPDM RUBBER PROFILES (WEATHER STRIPS, INDUSTRIAL MONOSTRIPS ETC) * GRANITE CUTTING AND POLISHING UNIT (100% EOU) * SURGICAL COTTON, ROLLER BANDAGE, CREPE BANDAGE & PLASTER CART (READY MADE) E.G. GYPSONA 3M CART * ENTERTAINMENT CLUB, HOLIDAY RESORT, 4 STAR HOTEL, AMUSEMENT PARK CUM WATER PARK, MUSHROOM & ITS PRODUCTS, FISH FARMING, LAKE FOR BOATING, DEER PARK ETC. * HDPE, PVC, LLDPE PIPES/ TUBES AND FITTING * EPOXIDIZED SOYABEAN OIL (SECONDARY PLASTICIZER) USED IN PVC COMPOUND * POULTRY PROCESSING PLANT * B.O.P.P. SELF ADHESIVE TAPES * I.V.SET * MANGANESE OXIDE AND MANGANESE SULPHATE * ODOURLESS NYLON GRANULES FROM FIBER OF WASTE TYRE WITHOUT CHANGING PROPERTIES OF NYLON * PARTICLE BOARD FROM RICE HUSK OR WOOD WASTE OR SUGAR CANE BAGASSE OR MIXED OF ALL ABOVE * POULTRY LAYER AND BROILER FARMING * TOMATO, GUAVA AND MANGO PULP * GREEN HOUSE * HYDROXY PROPYL GUAR (HPG) AND CARBOXY METHYL HYDROXY PROPYL GUAR * BATHSOAP MANUFACTURE * PLASTIC MOULDED CHAIRS * FROZEN POTATO PATTY * CALCIUM ALUMINATE * ACTIVATED CARBON FROM COCONUT SHELL * RIGID PVC FILM MANUFACTURE FOR PHARMACEUTICALS BLISTER 	<p>PACKAGING</p> <ul style="list-style-type: none"> * NYLONE 66 CURING TAPE USED IN RUBBER HOSE PIPE WRAPPING * ANTIFOAMING/DEFOAMING AGENT LIKE ANTAROL T-709 * SOY AND GLUTEN BASED MOCK MEAT * KRAFT PAPER USING WASTE PAPER AND OLD CORRUGATED CARTONS * GLASS BOTTLE FOR BEER AND BEER MUG (TUMBLER) * DISPOSABLE SYRINGES AND NEEDLE PLANT (Single Use Syringes, Single Use Needles & As Syringes) * DIRECT FILLED BALL PEN (USE AND THROW) * BENZALKONIUM CHLORIDE * SPINNING COTTON (COTTON SPINNING PLANT) * CALCIUM CHLORIDE USING LIME STONE AND HYDROCHLORIC ACID * RUBBER POWDER FROM WASTE TYRES * CALCINATION PLANT FOR PYROPHYLLITE AND DIASPORE MINERALS BY VERTICAL SHAFT KILN PROCESS * ONION, GARLIC & GINGER DEHYDRATION PLANT * POTASSIUM NITRATE * POTASSIUM SULPHATE * N.P.K. FERTILIZER * CHICORY EXTRACT (ROASTED CHICORY GRANULES/CUBES, LIQUID EXTRACT ETC.) * SOLID WASTE SEGREGATION * LAMITUBE MANUFACTURE * BOARDING SCHOOL * CERAMIC FUSE TUBE/ BARRELS USED IN HRC FUSE * SODIUM POLYACRYLATE DISPERSANT FOR USE IN WATER BASED PAINT WITH DISPERSANT FOR PIGMENT * NAIL POLISH, LIPSTICKS, NAIL POLISH REMOVER * SOYA PRODUCTS (MILK, PANEER, TOFU, BUTTER, CHEESE CURD/YOGURT, ICE CREAM) WITH PACKAGING UNIT * GREASE MANUFACTURING
---	--	--	---

TERMS AND CONDITIONS

Ask for the quotation for the required project report at
eiritechnology@gmail.com or eiriprojects@gmail.com
Mob: +91 9811437895 or +91 9811151047



ENGINEERS INDIA RESEARCH INSTITUTE

Regd. Off : 4449, Nai Sarak, Main Road, Delhi - 110 006 (India)
 * Ph: +91 9811437895, 9811151047, 91-11-23918117, 23916431, 45120361, 23947058, 64727385

* E-Mail : eiriprojects@gmail.com, eiritechnology@gmail.com

* Website: www.eiriindia.org, www.eiribooksandprojectreports.com

Deposit the amount in "EIRI" Account with HDFC BANK CA- 05532020001279 (RTGS/NEFT/IFSC CODE: HDFC00001981) OR ICICI BANK CA - 038705000994 (RTGS/IFSC CODE: ICIC0000387) OR AXIS Bank Ltd. CA- 054010200006248 (RTGS/IFSC CODE: UTIB0000054) OR UNION BAK OF INDIA CA- 307201010015149 (RTGS/NEFT/IFSC CODE: UBIN0530727) OR STATE BANK OF INDIA CA-30408535340 (RTGS/IFSC CODE: SBIN001273) & SMS ON PH. 09811437895

AVAILABLE PROCESS TECHNOLOGY BOOKS AT www.eiriindia.org

Name of Books	Rs. US\$	Name of Books	Rs. US\$	Name of Books	Rs. US\$
CHEMICALS, DYES, LUBRICATING OILS, PETRO CHEMICALS ELECTROPLATING		PACKAGED DRINKING WATER		Moulds Design & Processing	
* Small Medium & Large Chemical Industries	375/- 40	* Technology of Water and Packaged Drinking Water	1100/- 110	* Hand Book	495/- 50
* Industrial Chemicals Technology Hand Book	1100/-110	PRINTING & PACKAGING		* Hand Book of Plastic Materials & Processing Technology	750/- 75
* Modern Technology of Organic & Inorganic Chemicals	1400/-140	* Complete Hand Book on Packaging Technology & Industries	1100/-110	* Injection Moulding of Plastics	750/-75
* Electroplating, Anodizing & Surface Finishing Tech.	1100/-110	* Printing Process Tech&Indt.	375/- 40	* Plastic Processing & Packaging Industries	975/-100
* Hand Book of Agro Chemical Indust.(Insecticide & Pesticide)	900/- 90	* Hand Book of Printing Technology (Offset, Screen, Flexo, Gravure, Inkjet & Digital)	975/-100	* Plastic Waste Recycling Tech.	750/-75
* Technology of Synthetic Dyes, Pigments Intermediates	1100/-110	* Hand Book of Offset Printing Technology	500/- 50	* Technology of Plastic Films	650/- 65
* Petrochemicals, Lubricants, Greases & Petroleum Refining	900/- 90	* Screen Printing with Processes & Technology	350/- 35	* Rotational Moulding Technology HandBook	750/- 75
* H.B.of Lubricants, Greases & Petrochemicals Technology	750/- 75	* Hand Book of Prepress	800/- 80	* Plastic Compounding, Master Batches, PET & Other Plastics	750/-75
GUMS, ADHESIVES & SEALANTS		* Hand Book of Packaging Indus	1300/-130	* Synthetic Resins Technology with Formulations	800/- 80
* Technology of Gums, Adhesives & Sealants with Formulations	950/- 95	* Modern Packaging Technology for Processing Food, Bakery, Snack Foods, Spices and Allied Food Products	900/- 90	* Technology of PVC Compounding & Its Applications	900/- 90
* Hand Book of Adhesives with their Formulae (2nd Edn.)	900/- 65	* Food Packaging Tech.	900/- 90	* Polymer & Plastic Technology	950/-90
* Adhesives Technology & Formulations Hand Book	975/- 98	* Tech. of Printing Inks	1150/-115	* H.B. of Fibre Glass Moulding	450/-45
* Technology of Glue & Adhesives with Adhesives Bonding and Formulations	1100/-110	* Packaging Technology	1150/-115	* Techn. of Reinforced Plastics	750/- 75
* Complete Hand Book on Adhesives and Adhesion Tech. with Project Profiles	900/- 90	* Corrugated Boxes	1100/-110	* Plastic Additives Technology	950/- 95
SMALL SCALE INDUSTRIES, STATIONERY, PAPER, INKS, CANDLES & EXPORT BUSINESS		PAINT, VARNISH, SOLVENTS, POWDER COATING & LACQUERS		* Technology of PET Bottles, Preform and PET Recycling	850/- 85
* Start Your Own Export Business (How To Export)	450/- 45	* Paint Pigment Varnish & Lacquer Manufacturing	450/- 45	* Modern Technology of Extrusion & Extruded Products	800/- 80
* Start Your Own Small Business and Industry	350/- 35	* Paint Varnish Solvents & Coating Technology	800/- 80	* Technology of Synthetic Resins & Emulsion Polymers	975/-100
* Candle Making Processes & Formulations Hand-Book	750/- 75	* Paint, Pigment, Solvent, Coating, Emulsion, Paint Additives & Formulations	950/- 95	* Technology of Plastic Additives with Processes and Packaging	900/- 90
* Stationery, Paper Converting & Packaging Industries	400/- 40	* Technology of Coatings, Resins, Pigments & Inks Industries	975/-100	* Complete Technology Book On Identification Of Plastics And Plastic Products Materials	975/-100
* Modern Inks Formulaes & Manufacturing Industries	325/- 35	* Mfg. Tech. & Formulations H.B. on Thinners, Putty, Wall & Indu. Finishes & Synthetic Resins	900/- 90	* Identification Of Plastics & Other Plastic Process Industries	950/- 95
* Profitable Businesses to Start for Entrepreneurs	400/- 40	* Technology of Synthetic Resins & Emulsion Polymers	975/-100	* Complete Technology Book Of Plastic Processing And Recycling Of Plastics With Project Profiles	1250/-125
* Modern Small & Cottage Scale Industries	650/- 65	* Technology of Paints and Coatings with Formulations	1750/-175	* Complete Hand Book Of Blow Moulding Plastics Technology With Project Profiles	975/- 98/-
* Profitable Small Cottage Tiny & Home Industries (2nd Edn.)	900/- 90	* Powder Coating Technology	750/- 75	* Modern Technology Of Injection Moulding, Blow Moulding, Plastic Extrusion, Pet & Other	975/-100
BIO FUEL, BIO GAS & BIOPROCESSING		* Paint Technology Hand Book with Formulations (Acrylic Emulsion, Powder Coating, Leveling Agents, PU Ink Binders, Dispersing Agents, Formaldehyde, Polyester Resin, Acrylic Binders and PU Coatings)	1100/- 110	BEE-KEEPING & HONEY PROCESSING	
* Technology of Bio-Fuel (Ethanol & Biodiesel)	975/-100	* Complete Hand Book on Paints, Varnish, Resins, Copolymers and Coatings with Manufacturing Process, Formulations/Tech	900/-90/-	* Tech Book On Beekeeping And Honey Products With Project Profiles	975/- 98
* Mod. Tech. of Bioprocessing	1475/-150	* Manufacture Of Nitrocellulose Lacquers, Pu Lacquer, Vacuum Metallizing Lacquers And Other Lacquers With Formulations And Project Profiles	750/- 75/-	* Complete Technology Book on Honey Processing and Formulations (Harvesting, Extraction, Adulteration, Chemistry, Crystallization, Fermentation, Dried Honey, Uses, Applications and Properties)	1100/- 110
* ModTech.of BioGas Production	1975/-200	PLASTIC/POLYMER PROCESSING, COMPOUNDING, INJECTION MOULDING, ROTATIONAL MOULDING, PLASTIC FILM, FIBRE GLASS, PLASTIC WASTE RECYCLING, MOULDS, PET & RESINS, ADDITIVES INDUSTRIES		* Modern Bee Keeping & Honey Processing	375/- 40
SWEETS, NAMKEEN & SNACK FOOD		STARCH MANUFACTURING		Technology of Starch Manufacturing (Applications, Properties and Composition) with Project Profiles	
* Tech of Sweets (Mithai)	1050/-110				
* Technology of Sweets (Mithai), Namkeen and Snacks Food with Formulae	1750/- 175				
* Mfr. of Snacks Food, Namkeen, Pappad & Potato Products	900/- 90				

**LIST OF PUBLICATIONS/BOOKS PUBLISHED BY: ENGINEERS INDIA
RESEARCH INSTITUTE 4449, NAI SARA, MAIN ROAD, DELHI - 6 (INDIA)**

Name of Books	Rs.	US\$	Name of Books	Rs.	US\$	Name of Books	Rs.	US\$
AGRO CULTIVATION, ANIMAL FARMING, AGRO PLANTATION & AGRO CHEMICAL/PESTICIDES/ FLORICULTURE/ALOEVERA			Technology of Food Preservation & Processing			COSMETICS TECHNOLOGY (SYNTHETIC & HERBAL)		
* Poultry Farm & Feed Formulae	575/-	58	* Food Packaging Tech	900/-	90	* Cosmetics Processes & Formulations HandBook	1475/-	140
* Hand Book of Pig Farming	400/-	40	* Agro Based & Processed Food Products	1100/-	110	* Herbal Cosmetics & Beauty Products with Formulations	950/-	95
* Agro Based H.B. of Plantation, Cultivation & Farming	500/-	75	* Technology of Maize & Allied Corn Products	650/-	65	* Profitable Small Scale Manufacture of Cosmetics	950/-	95
* Agro-Based Plantation Cultivation & Farming	475/-	50	* Technology of Food Processing Industries	975/-	100	* Synthetic & Herbal Cosmetic	975/-	98
* Agro Chemical Industries (Insecticide & Pesticides)	900/-	90	* Complete Book on Banana Cultivation, Dehydration Ripening, Processing, Products & Packaging Tech	975/-	100	* Tech of Herbal Cosmetics & Toiletries Products/Formulae	1100/-	
* Technology of Modern Rice Milling and Basmati Rice	600/-	60	* Agro Food Processing and Packaging Technology	1100/-	110	* Start Your Own Hair Shampoos and Conditioners with Manufacturing Processes	900/-	90
* Hand Book of Goat Farming	450/-	50	* Modern Tech. of Tomato Processing/Dehydration	1100/-	110	* Manufacturing Processes And Formulations Of Cleansing Creams, Baby Products, Face Powders....	975/-	98
* Floriculture Hand Book (Flowers Growing Technology)	1000/-	100	* Technology of Food Chemicals, Pigments & Food Aroma Compd.	1100/-	110	* Formulations & Mfg. Processes of Vanishing all Purpose.....	900/-	90
* Aloe Vera Cultivation, Processings, Formulations and Manufacturing Technology	2500/-	250	* Modern Technology of Agro Processing & Food Packaging Products with Project Profiles	1100/-	110	OILSEEDS AND FATS		
DAIRY FARM, MILK PROCESSING AND ICE CREAM			POULTRY FARM, HATCHERY & CHICKEN MEAT TECHNOLOGY			* Hand Book of Oils, Fats and Derivatives with Refining & Packaging Technology	950/-	95
* Dairy Formulations, Processes & Milk Processing Industries	750/-	75	* Technology of Chicken Meat and Poultry Products	1750/-	175	* Technology of Oilseeds Processing, Oils & Fats and Refining	1400/-	140
* Milk Processing and Dairy Products Industries	950/-	95	* Poultry Farming, Hatchery & Broiler Production	975/-	100	ESSENTIAL OILS & AROMATIC		
* Dairy Farming to Produce Milk with Packaging	475/-	50	* Fresh processed meat & coated poultry products with manufacturing of dried meat emulsions and curing of poultry products	1100/-	110	* Essential Oils Manufacturing & Aromatic Plants	650/-	65
* Hand Book of Ice Cream Technology and Formulae	750/-	75	* Poultry Farm/Feed Formulae	575/-	60	* Modern Technology of Essential Oils	850/-	85
* Hand Book of Milk Processing, Dairy Products and Packaging Technology	1675/-	165	WOOD, PLYWOOD, PARTICLE, BOARD, BAMBOO & FOREST			* Technology of Perfumes, Flavours & Essential Oils	1175/-	120
* Dairy Farming for Milk Production Technology	975/-	100	* Modern Technology of Wood, Veneer, Plywood, Particle Board, Fibreboard, Bamboo & Forest Products	1600/-	160	* Essential Oils Processes & Formulations	650/-	65
* Commercial Dairy Farming with Project Profiles	750/-	75	SOAP, DETERGENT & ACID SLURRY			PERFUMES AND FLAVOURS		
HERBS CULTIVATION/MEDICINES			* Household Soap, Toilet Soap & Other Soap	750/-	75	* Hand Book of Flavours & Food Colourants Technology	1400/-	140
* Herbs, Medicinal & Aromatic Plants Cultivation	650/-	65	* Soaps & Detergents	750/-	75	* H. B. of Perfume & Flavours	975/-	98
* Aushidhi and Sungndhit Paudho Ka Vaysayik (Hindi)	800/-	80	* Synthetic Detergents	975/-	90	* Hand Book of Perfumes with Formulations (2nd Edn.)	900/-	75
* Aromatic & Medicinal Plants and Biodiesel (Jatropha)	1100/-	110	* Acid Slurry, Surfactants, Soap & Detergents/Formulae	850/-	85	* Technology of Perfumes, Flavours & Essential Oils	1175/-	120
* Hand Book of Medicinal & Aromatic Plants	875/-	90	* Complete Tech Book on Detergents with Formula	950/-	95	* Complete Technology Book on Perfumes, Agarbatti, Dhoopbatti, Attar and other Products Manufacturing & Formulations with Project Profiles	950	95
FOOD & AGRO PROCESS, TOMATO PROCESSING, PRESERVATION, DEHYDRATION, FRUIT BEVERAGE, POTATO, MAIZE, MEAT, BANANA			* Manufacture of Washing Soap, Toilet Soap, Detergent Powders, Liquid Soap & Herbal Detergents & Perfumes	1100/-	110	* H.B. of Flavours Tech.	750/-	75
* Fruits & Vegetable Processing Hand Book (2nd Edn.)	900/-	75	* Mfg Tech of Surfactants, Washing Powders, Optical Brighteners & Chelating	1275	125	* Manufacture Of Perfumes, Fragrances, Scents, Essences And Incense Sticks (Agarbatti) With Formulations	975/-	98
* Fruit Beverage & Processing with Mango	750/-	75	* Complete Tec. Book on Soaps, Detergents, Cleaners & Fragrance with Formulae	1100/-	110	SOLAR PV PANELS, ENERGY		
* Food Processing & Agro Based Industries (2nd Edn.)	975/-	100				* Tech Of Solar Pv Panels, Energy, Cells, Lantern, Cooler, Light System, Photovoltaic System, Power Plant, Water Heater, Collector, Solar Cooling, Refrigeration, Solar Drying, Home System, Dish Engine & Other Solar Products Mfg.	1250/-	125
* Preservation & Canning of Fruits and Vegetables	1200/-	120						
* Hand Book of Food Dehydration & Drying	1100/-	110						
* Meat Processing & Meat Products Hand Book	900/-	90						

SPICE, SEASONING, CONDIMENTS & COLD STORAGE	MINERAL AND MINERALS	ORGANIC FARMING & FOOD/NEEM
* Technology of Spices and Seasoning of Spices with Formulae 975/- 98 * Technology Of Spices (Masala) And Condiments With Project Profiles (Cultivation, Uses, Extn, Composition etc) 1100/-110 * Spices & Packaging with Formula 900/- 90 * Start Your Own Cold Storage Unit 900/- 90	* Hand Book of Minerals and Minerals Based Industries 975/- 100 RUBBER CHEMICALS, COMPOUNDS * Rubber Chemicals & Processing Industries 400/- 40 * Modern Rubber Chemicals, Compounds & Rubber Goods Technology 1500/- 150 * Technology of Rubber & Rubber Goods Industries 900/- 90	* Hand Book of Organic Farming and Organic Foods with Vermi-Composting & Neem Product 1100/- FISH FARMING & FISHERY PRODUCTS * Hand Book of Fish Farming and Fishery Products 650/- 65 TEXTILE AUXILIARY & CHEMICALS * Textile Auxiliaries & Chemicals with Processes/Formula 1050/- 105 * Tech of Textile Chemicals with Formulations 1450/- 145 * Modern Technology of Textile Auxiliary and chemicals with formulations 1100/- 110 * Textile Processing Chemicals, Enzymes, Dye Fixing Agents and Other Finishes with Project Profiles 1275/- 125
NON WOVEN TECHNOLOGY	AYURVEDIC/HERBAL MEDICINES	
* Complete Tech. of Nonwovens Fabrics, CarryBags, Composite, Geotextiles, Medical Textiles, Fibres, Felts, Apparels, Spunlace and Absorbent Nonwoven1175/- 120	* Ayurvedic & Herbal Medicines with Formulae 750/- 75 * Hand Book of Ayurvedic Medicines with Formulations	
PHARMACEUTICALS & DRUGS	STAINLESS STEEL, NON FERROUS METALS, BILLETS & ROLLING MILL	DISINFECTANTS, CLEANERS, PHENYL, DEODORANTS, DISHWASHING DETERGENTS ETC.
* Tablets, capsules, Injectables, Dry Strups, Oral & External Preparations, Eye, Ear1575/- 155	* Modern Technology of Non Ferrous Metals and Metal Extraction 1100/-110 * Processing Technology of Steels and Stainless Steels 1900/-190	* Manufacture of Disinfectants, Cleaners, Phenyl, Repellents, Deodorants, Dishwashing Detergents with Formulae 900/- 90
LEATHER & LEATHER PRODUCTS	* Modern Technology of Rolling Mill, Billets, Steel Wire, Galvanized Sheet, Forging & Castings 2500/-250 * Mfg Tech of Non-Ferrous Metal Products 1750/- 175	COFFEE & COFFEE PROCESSING
BIOTECHNOLOGY	FOOD ADDITIVES/CHEMICALS AND SWEETENERS & FOOD EMULSIFIERS	ONION CULTIVATION/PROCESSING
* Hand Book of Biotechnology900/-90	* Modern Technology of Food Additives, Sweeteners and Food Emulsifiers 1575/- 156 * Technology of Food Chemicals, Pigments and Food Aroma Compounds 1100/- 110	* Onion Cultivation, Dehydration, Flakes, Powder, Processing & Packaging Technology 975/- 98
CERAMICS & CERAMIC PROCESS	DISPOSABLE MEDICAL PRODUCTS	BUILDING MATERIAL & CHEMICALS
* H.B.of Ceramics & Ceramics Processing Technology 1975/- 200 * Modern Tech Of Ceramic Products With Composition 1100/- 110	* Technology of Disposable Medical Products 1750/-175	* Technology of Building Materials & Chemicals with Processes950/- 95
TREE FARMING	SOYA MILK, TOFU & SOY PRODUCTS	TEXTILE, GARMENTS, DYEING...
* Hand Book of Tree Farming 800/- 80	* Technology of Soya Milk, Tofu, Hydrolyzate, Allied Soyabean Products with project Profile 975/- 100 * Technology of SOYBEAN Products with Formulae 1100/- 100	* Mod. Tech. of Bleaching, Dyeing, Printing & Finishing of Textiles 750/- 75 * Technology of Textiles (Spinning & Weaving, Dyeing, Scouring, Drying, Printing and Bleaching) 900/- 90 * Garments Manufacturing Tech. 900/- 90
MUSHROOM PROCESSING	PRODUCTS FROM WASTE	BAKERY, CONFECTIONERY, BISCUITS, COOKIES, BREAKFAST, PASTA & CEREALS
* Hand Book of Mushroom Cultivation, Processing & Packaging 550/- 55	* Technology of Products from Wastes (Industrial, Agriculture, Medical, Municipality, Organic & Biological) By Panda 900/- 90 * Products from Waste Technology Hand Book 1100/- 110	* Technology of Biscuits, Rusks, Crackers & Cookies with Formulations 975/- 98 * Hand Book of Confectionery with Formulations 900/- 90 * Breakfast, Dietary Food, Pasta & Cereal Products Tech 1150/-120 * Modern Bakery Products 900/- 90 * Modern Bakery Technology & Fermented Cereal Products with Formulae 1250/-125
BIOFERTILIZERS & VERMICULTURE	WINE PRODUCTION	
* Biofertilizers & Vermiculture 900/-100	* Technology of Wine Production and Packaging 1750/- 175	
BIODEGRADABLE PLASTICS AND POLYMERS	CASTING TECHNOLOGY	
* Modern Technology of Biodegradable Plastics and Polymers With Processes (Bio-Plastic, Starch Plastics, Cellulose Polymers & other) 975/- 100 * Production of Biodegradable Plastics & Bioplastics Tech 1500/-150	* Casting Technology H.Book750/- 75	
FROZEN FOOD/FREEZE DRYING	PULP & PAPER TECHNOLOGY	
* Frozen Food Processing & Freeze Drying Technology 1000/- 100 * Frozen Food Products 900/- 90	* H.B.of Pulp & Paper, Paper Board & Paper Based Tech. 1150/- 120	
BEER, VODKA, BEVERAGE, WHISKY	FLOUR MILL (ATTA MAIDA, SUJI)	TECHNOLOGY OF FIBRES
* Beer,Cereal Based Beverages, Soy Beverages, Fruit Wine, Vodka, Tea Beverages & Beverages 1100/- 110 * Mfg Tech Hand Book Of Gin, Rum, Whisky, Distillery Spirits, Brandy, Fruit Spirits, Flavours, Maturation & Blending With Other Alcoholic Beverage 1250/- 125	* Start Your Own Wheat Flour Mill (Atta, Maida, Suji, Bran & Besan) 900/- 90	* Fibres With Manufacturing Processes & Properties With Project Profiles 975/- 100