HI-TECH PROJECTS

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

AUGUST 2018 Issue

(E-copy)

ENGINEERS INDIA RESEARCH INSTITUTE

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

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

*** E-Mail : eiri@eiriindia.org, eiritechnology@gmail.com**

*** Website: www.eiriindia.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

AAC BLOCK MANUFACTURING PLANT [EIRI/3225]

Autoclaved aerated concrete is a versatile lightweight construction material and usually used as blocks. Compared with normal (ie: "dense" concrete) aircrete has a low density and excellent insulation properties. The low density is achieved by the formation of air voids to produce a cellular structure. These voids are typically 1mm-5mm across and give the material its characteristic appearance. Blocks typically have strengths ranging from 3-9 Nmm-2 (when tested in accordance with BS EN 771-1:2000). Densities range from about 460 to 750 kg m-3; for comparison, medium density concrete blocks have a typical density range of 1350-1500 kg m-3 and dense concrete blocks a range of 2300-2500 kg m-3. Autoclaved aerated concrete blocks are excellent thermal insulators and are typically used to form the inner leaf of a cavity wall.

COST ESTIMATION

Plant Capacity	50 Cubic mtr./Day
Land & Building (1 Acre)	Rs. 1.88 Cr.
Plant & Machinery	Rs. 1.22 Cr.
W.C. for 1 Month	Rs. 56 Lac
Total Capital Investment	Rs. 3.74 Cr.
Rate of Return	22%
Break Even Point	66%

****

PV PANELS MANUFACTURING PLANT [EIRI/3226]

Solar Panels are in general Silicon made Rectangular Shaped Glass Covered Products which Produce Electricity when exposed to the Sun. These Panels produce Direct Current (DC) Electricity which has to be converted by a Solar Inverter to Alternating Current (AC) Electricity to be used by Consumers Solar PV panel refers to a panel designed to absorb the sun's rays as a source of energy for generating electricity. A photovoltaic (in short PV) module is a packaged, connect assembly of typically 6×10 solar cells. Solar Photovoltaic panels constitute the solar array of a photovoltaic system that generates and supplies solar electricity in commercial and residential applications. Each module is rated by its DC output power under standard test conditions, and typically ranges from 100 to 365 watts A single solar module can produce only a limited amount of power; most installations contain multiple modules. A photovoltaic system typically includes a panel or an array of solar modules, a solar inverter, and sometimes a battery and/or solar tracker and interconnection wiring. The price of solar power, together with batteries for storage, has continued to fall so that in many countries it is cheaper than ordinary fossil fuel electricity from the grid (there is "grid parity"). Solar panel refers to a panel designed to absorb the sun's rays as a source of energy for generating electricity or heating. A photovoltaic (PV) module is a packaged, connect assembly of typically 6×10 solar cells.

COST ESTIMATION

Plant Capacity	84 KW/Day
Land & Building (4000 sq.mt.)	Rs. 3.22 Cr.
Plant & Machinery	Rs. 2.63 Cr.
W.C. for 2 Months	Rs. 9.70 Cr.
Total Capital Investment	Rs. 15.95 Cr.
Rate of Return	90%
Break Even Point	27%

****

SOLAR WATER HEATER MANUFACTURING PLANT [EIRI/3227]

A Solar Water Heater is a device that uses solar energy to heat water for domestic, commercial, and industrial needs. Heating of water is the most common application of solar energy in the world. A typical solar water heating system can save up to 1500 units of electricity every year, for every 100 litres per day of solar water heating capacity The Sun's rays fall on the collector panel (a component of solar water heating system). A black absorbing surface (absorber) inside the collector absorbs solar radiation and transfers the heat energy to water flowing through it. Heated water is collected in a tank which is insulated to prevent heat loss. Circulation of water from the tank through the collectors and back to the tank continues either automatically due to thermo siphon effect or through a circulation pump.

COST ESTIMATION

Plant Capacity	3 Nos./Day
Land & Building (2500 sq.mt.)	Rs. 2.07 Cr.
Plant & Machinery	Rs. 46 Lacs
W.C. for 2 Months	Rs. 1.41 Cr.
Total Capital Investment	Rs. 4.20 Cr.
Rate of Return	40%
Break Even Point	53%

****

SOLAR LEAD ACID BATTERY [EIRI/3229]

The lead acid-battery is the most commonly used in solar power system applications. Lead Acid Storage Batteries is an electro-chemical system that converts electrical energy into direct current electricity. It is also known as storage batteries and has wide applications in Automobiles, UPS/ Inverters, Traction/Electrical Sub-Station, Telecommunication, Solar Photovoltaic system etc. Flooded cells are those where the electrodes/plates are immersed in electrolyte. Since gases created during charging are vented to the atmosphere, distilled water must be added occasionally to bring the electrolyte back to its required level. The most familiar example of a flooded lead-acid cell is the 12-V automobile battery.

COST ESTIMATION

Plant Capacity	1025 Nos./Day
Land & Building (9000 sq.mt.)	Rs. 7.28 Cr.
Plant & Machinery	Rs. 3.45 Cr.
W.C. for 2 Months	Rs. 15.37 Cr.
Total Capital Investment	Rs. 26.64 Cr.
Rate of Return	25%
Break Even Point	56%

****

LED LIGHTS ASSEMBLY/ MANUFACTURING PLANT [EIRI/3231]

Light emitting diode (LED) is a semiconducting device that emits light when electrical current is applied to the device. LEDs are said to be the future light source because of their low energy usage and efficiency. The advantages of LEDs are that they are very robust, have a very long lifetime or up to 50,000 hours, they are easily dimmable and fail by dimming over time, rather than burn off like incandescent light bulbs. LEDs cause less glare irritation because of the smaller beam angle of the luminaire. LEDs are very common as indicator lights in electrical equipment and recently in higher power applications such as flashlights and artificial lighting. The colour of the light depends on the composition and condition of the semiconducting material used. It can be infrared, visible or ultraviolet. Blue, green and red LEDs can be used to produce most perceptible colours, including white. Today, after many years of development, the LEDs on the market are now emitting white light in different colour temperatures as well as an advanced RGB control to produce coloured light to capture different moods for various aspects. Because of the huge potential of LED technology and the constant improvements in the quality (e.g. colour rendering), it can be predicted that the use of LEDs will become more common in both homes and offices with the advantage of energy savings due to their efficiency and long lifetime. Another advantage of using LED is it does not contain Hg, which is not an eco-friendly chemical and has adverse effect on human body. The pn junction diode, which is specially doped and made of special type of semiconductor, emits light when it is forward biased is called light emitting diode. To understand the working principle of light emitting diode, we first have to understand a basic of quantum theory. According to this theory, when an electron comes down from its higher energy level to lower energy level, it emits energy in form of a photon.

COST ESTIMATION

Plant Capacity	1623 Nos./Day
Land & Building (500 sq.mt.)	Rs. 43 Lacs
Plant & Machinery	Rs. 3 Lacs
W.C. for 2 Months	Rs. 1.95 Cr.
Total Capital Investment	Rs. 2.55 Cr.
Rate of Return	107%
Break Even Point	25%

****

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 produces 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(15000Sq.Yd)	Rs. 22.90 Cr
Iant & 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
Iant & 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, ie. 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 CH2OH (CHOH)n CH2OH, where n may be from 2 to 5. Polyurethane system comprises polyol and isocyanate used for thermoware/ Non-thermoware panel (sandwich) refrigeration bloch 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 alchohols 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
Iant & 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) Kasthausadhi (predominantly plant drugs) and (2). Rasausadhi (predominantly metals and minerals). There are several categories of Kasthausadhi formulations such as Asavaristra, Avleha, Grafa Churena, Taila etc. and of Rasausadhis such as Bhasma, Pisti, 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
Iant & 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 empolyment to over 40,000 people and indirect empolyment 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 vastnes of the country and the thrust given for balanced development, road transport would have decisine 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
Iant & 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

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 overa 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 EXTRACTON 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 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%

****

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

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

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 gl 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 point 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%

****

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 classy 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 C2 H2O 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 finally 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. 29.75Lac
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 prevelant 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-excipients — 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 excipents 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 SULUTION 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 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. Colloid: 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 sheating, 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%

****

Patrons, deposit amount in EIRI Account

STATE BANK OF INDIA

CA-30408535340

(RTGS/NEFT/IFSC Code: SBIN0001273)

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"

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: ICIC0000387)

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, ZnSo4.H2O. Zinc sulphate is also found in three hydrates forms whose molecular formulas are ZnSo4.4H2O,ZnSo4.H2O. The unstable hydrates are more soluble than stable form. The solubility of the unstable hydrate is 58.7 gm in 10gm of water at 18oc while stable shows only 52.7 gm in 100 grams. The important & popular commercial form of the compound is ZnSo4.7H2O Heptahydrated (21%), & ZnSO4. H2O. In 1978 Mr. P.N. Thakar and Mr. N.S. Randhewa of Punjab Agriculture University Ludhiana worked on "Micronutrients in Indian Agiculture" and established the areas of Zinc deficiency based on sail 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 th~\acquer industry as plasticizers. It is also used to manufacture alkyd resins, the glyptal and rezyl 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 o£ naphthalene by air led to the present productior~. 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 tachydrite 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, sheahing 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 maditerranean 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

- **To get Loan/Finance from Banks/Finacial Institutes.**
- **To set up your own Industry/Unit**
- **To have Detailed & Exhaustive Data on any Project.**

* 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 uptodate 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 & Equipmants, Prices od 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 PETROLEM (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"

* 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 & SPONG IRON
* M.S. BILLET CASTING WITH INDUCTION FURNACE FROM STEEL SCRAP & SPONGE IRON
* PROCESSING OF LOW GRADE TUNGESTEN ORE FULL BODY & CHASSISS 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
* 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 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
* 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 FORPOTATO 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)

* 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 (EXPELLER PROCESS)
* MEDICAL COLLEGE WITH 750 BEDS HOSPITAL FACILITY
* MICRO IRRIGATION PRODUCT MANUFACTURING PLANT
* HOT DIP GALVANIZING MUSTARD OIL PROCESSING PLANT (EXPELLER 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 MALTOSE 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 CENTRALLISED KITCHEN
* 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 CENTRALLISED 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 MALTOSE 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 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
* POLYALUMINIUM CHLORIDE
* NAMKEEN INDUSTRY (BHUJIA, 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)
* AUTOCLAVED 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

Highly Profitable Projects for New Entrepreneurs
"EIRI Market Survey Cum Detailed Techno Economic Feasibility Reports"

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
* 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, 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
* 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
* THERMOCOLE 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

FORMULA OF DIFFERENT TYPES QUALITIES (LOW/ MEDIUM/HIGH COST)
* 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, GANTHIA (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 OUTSOURCE (B.P.O.)
* 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)
* 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 PACKAGING
* 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: SBIN0001273) & SMS ON PH. 09811437895

AVAILABLE PROCESS TECHNOLOGY BOOKS AT www.eiriindia.org

Name of Books	Rs.	US$
CHEMICALS, DYES, LUBRICATING OILS, PETRO CHEMICALS ELECTROPLATING		
* Small Medium & Large Chemical Industries	375/-	40
* Industrial Chemicals Technology Hand Book	1100/-	110
* Modern Technology of Organic & Inorganic Chemicals	1400/-	140
* Electroplating, Anodizing & Surface Finishing Tech.	1100/-	110
* Hand Book of Agro Chemical Indust.(Insecticide & Pesticide)	900/-	90
* Technology of Synthetic Dyes, Pigments Intermediates	1100/-	110
* Petrochemicals, Lubricants, Greases & Petroleum Refining	900/-	90
* H.B.of Lubricants, Greases & Petrochemicals Technology	750/-	75
GUMS, ADHESIVES & SEALANTS		
* Technology of Gums, Adhesives & Sealants with Formulations	950/-	95
* Hand Book of Adhesives with their Formulae (2nd Edn.)	900/-	65
* Adhesives Technology & Formulations Hand Book	975/-	98
* Technology of Glue & Adhesives with Adhesives Bonding and Formulations	1100/-	110
* Complete Hand Book on Adhesives and Adhesion Tech. with Project Profiles	900/-	90
SMALL SCALE INDUSTRIES, STATIONERY, PAPER, INKS, CANDLES & EXPORT BUSINESS		
* Start Your Own Export Business (How To Export)	450/-	45
* Start Your Own Small Business and Industry	350/-	35
* Candle Making Processes & Formulations Hand-Book	750/-	75
* Stationery, Paper Converting & Packaging Industries	400/-	40
* Modern Inks Formulaes & Manufacturing Industries	325/-	35
* Profitable Businesses to Start for Entrepreneurs	400/-	40
* Modern Small & Cottage Scale Industries	650/-	65
* Profitable Small Cottage Tiny & Home Industries (2nd Edn.)	900/-	90
BIO FUEL, BIO GAS & BIOPROCESSING		
* Technology of Bio-Fuel (Ethanol & Biodiesel)	975/-	100
* Mod. Tech. of Bioprocessing	1475/-	150
* ModTech.of BioGas Production	1975/-	200
SWEETS, NAMKEEN & SNACK FOOD		
* 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

Name of Books	Rs.	US$
PACKAGED DRINKING WATER		
* Technology of Water and Packaged Drinking Water	1100/-	110
PRINTING & PACKAGING		
* Complete Hand Book on Packaging Technology & Industries	1100/-	110
* Printing Process Tech&Indt.	375/-	40
* Hand Book of Printing Technology (Offset, Screen, Flexo, Gravure, Inkjet & Digital)	975/-	100
* Hand Book of Offset Printing Technology	500/-	50
* Screen Printing with Processes & Technology	350/-	35
* Hand Book of Prepress	800/-	80
* Hand Book of Packaging Indus	1300/-	130
* Modern Packaging Technology for Processing Food, Bakery, Snack Foods, Spices and Allied Food Products	900/-	90
* Food Packaging Tech.	900/-	90
* Tech. of Printing Inks	1150/-	115
* Packaging Technoloy	1150/-	115
* Corrugated Boxes	1100/-	110
PAINT, VARNISH, SOLVENTS, POWDER COATING & LACQUERS		
* Paint Pigment Varnish & Lacquer Manufacturing	450/-	45
* Paint Varnish Solvents & Coating Technology	800/-	80
* Paint, Pigment, Solvent, Coating, Emulsion, Paint Additives & Formulations	950/-	95
* Technology of Coatings, Resins, Pigments & Inks Industries	975/-	100
* Mfg. Tech. & Formulations H.B. on Thinners, Putty, Wall & Indu. Finishes & Synthetic Resins	900/-	90
* Technology of Synthetic Resins & Emulsion Polymers	975/-	100
* Technology of Paints and Coatings with Formulations	1750/-	175
* Powder Coating Technology	750/-	75
* Paint Technology Hand Book with Formulations (Acrylic Emulsion, Powder Coating, Level ling Agents, PU Ink Binders, Dispersing Agents,Formaldehyde, Polyester Resin, Acrylic Binders and PU Coatings)	1100/-	110
* Complete Hand Book on Paints, Varnish, Resins, Copolymers and Coatings with Manufacturing Process, Formulations/Tech	900/-	90/-
* Manufacture Of Nitrocellulose Lacquers, Pu Lacquer, Vacuum Metallizing Lacquers And Other Lacquers With Formulations And Project Profiles	750/-	75/-
PLASTIC/POLYMER PROCESSING, COMPOUNDING, INJECTION MOULDING, ROTATIONAL MOULDING, PLASTIC FILM, FIBRE GLASS, PLASTIC WASTE RECYCLING, MOULDS, PET & RESINS, ADDITIVES INDUSTRIES		

Name of Books	Rs.	US$
* Moulds Design & Processing Hand Book	495/-	50
* Hand Book of Plastic Materials & Processing Technology	750/-	75
* Injection Moulding of Plastics	750/-	75
* Plastic Processing & Packaging Industries	975/-	100
* Plastic Waste Recycling Tech.	750/-	75
* Technology of Plastic Films	650/-	65
* Rotational Moulding Technology HandBook	750/-	75
* Plastic Compounding, Master Batches, PET & Other Plastics	750/-	75
* Synthetic Resins Technology with Formulations	800/-	80
* Technology of PVC Compounding & Its Applications	900/-	90
* Polymer & Plastic Technology	950/-	90
* H.B. of Fibre Glass Moulding	450/-	45
* Techn. of Reinforced Plastics	750/-	75
* Plastic Additives Technology	950/-	95
* Technology of PET Bottles, Preform and PET Recycling	850/-	85
* Modern Technology of Extrusion & Extruded Products	800/-	80
* Technology of Synthetic Resins & Emulsion Polymers	975/-	100
* Technology of Plastic Additives with Processes and Packaging	900/-	90
* Complete Technology Book On Identification Of Plastics And Plastic Products Materials	975/-	100
* Identification Of Plastics & Other Plastic Process Industries	950/-	95
* Complete Technology Book Of Plastic Processing And Recycling Of Plastics With Project Profiles	1250/-	125
* Complete Hand Book Of Blow Moulding Plastics Technology With Project Profiles	975/-	98/-
* Modern Technology Of Injection Moulding, Blow Moulding,Plastic Extrusion,Pet & Other	975/-	100
BEE-KEEPING & HONEY PROCESSING		
* Tech Book On Beekeeping And Honey Products With Project Profiles	975/-	98
* Complete Technology Book on Honey Processing and Formulations (Harvesting, Extraction, Adulteration, Chemistry, Crystallization, Fermentation, Dried Honey, Uses, Applications and Properties)	1100/-	110
* Modern Bee Keeping & Honey Processing	375/-	40
STARCH MANUFACTURING		
* Technology of Starch Manufacturing (Applications, Properties and Composition) with Project Profiles	1100/-	110

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

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

SPICE, SEASONING, CONDIMENTS & COLD STORAGE

* Technology of Spices and Seasoning of Spices with Formulae 975/- 98
* Technology Of Spices (Masala) And Condiments With Project Profiles (Cultivation, Uses, Extrn, Composition etc) 1100/-110
* Spices & Packaging with Formula 900/- 90
* Start Your Own Cold Storage Unit 900/- 90

NON WOVEN TECHNOLOGY

* Complete Tech. of Nonwovens Fabrics, CarryBags, Composite, Geotextiles, Medical Textiles, Fibres, Felts, Apparels, Spunlace and Absorbent Nonwoven1175/- 120

PHARMACEUTICALS & DRUGS

* Tablets, capsules, Injectables, Dry Strups, Oral & External Preparations, Eye, Ear 1575/- 155

LEATHER & LEATHER PRODUCTS

* Hand Book of Leather & Leather ProductsTechnology 850/-85

BIOTECHNOLOGY

* Hand Book of Biotechnology900/-90

CERAMICS & CERAMIC PROCESS

* H.B.of Ceramics & Ceramics Processing Technology 1975/- 200
* Modern Tech Of Ceramic Products With Composition 1100/- 110

TREE FARMING

* Hand Book of Tree Farming 800/- 80

MUSHROOM PROCESSING

* Hand Book of Mushroom Cultivation, Processing & Packaging 550/- 55

BIOFERTILIZERS & VERMICULTURE

* Biofertilizers & Vermiculture 900/-100

BIODEGRADABLE PLASTICS AND POLYMERS

* 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

FROZEN FOOD/FREEZE DRYING

* Frozen Food Processing & Freeze Drying Technology 1000/- 100
* Frozen Food Products 900/- 90

BEER, VODKA, BEVERAGE, WHISKY

* 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

MINERAL AND MINERALS

* 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

AYURVEDIC/HERBAL MEDICINES

* Ayurvedic & Herbal Medicines with Formulaes 750/- 75
* Hand Book of Ayurvedic Medicines with Formulations

STAINLESS STEEL, NON FERROUS METALS, BILLETS & ROLLING MILL

* Modern Technology of Non Ferrous Metals and Metal Extraction 1100/-110
* Processing Technology of Steels and Stainless Steels 1900/-190
* Modern Technology of Rolling Mill, Billets, Steel Wire, Galvanized Sheet, Forging & Castings 2500/-250
* Mfg Tech of Non-Ferrous Metal Products 1750/- 175

FOOD ADDITIVES/CHEMICALS AND SWEETENERS & FOOD EMULSIFIERS

* Modern Technology of Food Additives, Sweeteners and Food Emulsifiers 1575/- 156
* Technology of Food Chemicals, Pigments and Food Aroma Compounds 1100/- 110

DISPOSABLE MEDICAL PRODUCTS

* Technology of Disposable Medical Products 1750/-175

SOYA MILK, TOFU & SOY PRODUCTS

* Technology of Soya Milk, Tofu, Hydrolyzate, Allied Soyabean Products with project Profile 975/- 100
* Technology of SOYBEAN Products with Formulae 1100/- 100

PRODUCTS FROM WASTE

* Technology of Products from Wastes (Industrial, Agriculture, Medical, Municipality, Organic & Biological) By Panda 900/- 90
* Products from Waste Technology Hand Book 1100/- 110

WINE PRODUCTION

* Technology of Wine Production and Packaging 1750/- 175

CASTING TECHNOLOGY

* Casting Technology H.Book750/- 75

PULP & PAPER TECHNOLOGY

* H.B.of Pulp & Paper, Paper Board & Paper Based Tech. 1150/- 120

FLOUR MILL (ATTA MAIDA, SUJI)

* Start Your Own Wheat Flour Mill (Atta, Maida, Suji, Bran & Besan) 900/- 90

ORGANIC FARMING & FOOD/NEEM

* 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

DISINFECTANTS, CLEANERS, PHENYL, DEODORANTS, DISHWASHING DETERGENTS ETC.

* Manufacture of Disinfectants, Cleaners, Phenly, Repellents, Deodorants, Dishwashing Detergents with Formulae 900/- 90

COFFEE & COFFEE PROCESSING

* Coffee & Coffee Processing525/- 53

ONION CULTIVATION/PROCESSING

* OnionCultivation, Dehydration, Flakes, Powder, Processing & Packaging Technology 975/- 98

BUILDING MATERIAL & CHEMICALS

* Technology of Building Materials & Chemicals with Processes950/- 95

TEXTILE, GARMENTS, DYEING...

* 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

BAKERY, CONFECTIONERY, BISCUITS, COOKIES, BREAKFAST, PASTA & CEREALS

* 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
* Confectionery,Chocolates, Toffee, Candy, Chewing & Bubble Gums, Lollipop & Jelly Products 1750/-175
* H.Book of Bakery Industries 950/-95

TECHNOLOGY OF FIBRES

* Fibres With Manufacturing Processes & Properties With Project Profiles 975/- 100