

❖ 22 PATENTS FILED IN WHICH 16 WERE GRANTED

SL.No	TITLE OF PATENT	TECHNOLOGY
1	A process for the preparation of a Fertilizer by U.S.Sarma & Anita Das Ravindranath (745/MAS/98 dated 6 th April 1998)	Manufacture of fertilizer from Coir pith
2	A process for the Treatment of Coir retting effluents by U.S.Sarma & Anita Das Ravindranath (746/MAS/98 dated 6 th April 1998)	Treatment of effluents coming out of retting of coir fibre/husk
3	A process for reducing the period of retting of coconut husk using COIRRET by U.S. Sarma & Anita Das Ravindranath (747/MAS/98 dated 6 th April 1998)	Reduction of the retting period of coconut husk
4	A process for mechanically extracted green husk fibre by U.S. Sarma & Anita Das Ravindranath (748/MAS/98 dated 6 th April 1998)	Treatment of machine extracted for fibre for improvement in color
5	A process for producing paper grade pulp from coir bit fibres(Case B) by U.S. Sarma, Anita Das Ravindranath, J. Sunil Dath and Christy Fernandez (64/MAS/99 dated 19 th January 1999)	Producing pulp from bit coir fibre for producing paper
6	A process for producing paper grade pulp from coir bit fibres(Case C) by U.S.Sarma, Anita Das Ravindranath, J.Sunil Dath & Christy Fernandez (65/MAS/99 dated 19 th January 1999)	Producing pulp from bit coir fibre for producing paper
7	An erosion control blanket (Case A) by Christy Fernandez & U.S.Sarma (588/MAS/2000 dated 28 th July 2000)	Producing erosion control blanket from coir fibre.
8	An Erosion control blanket from coir fibres(case F) by Christy Fernandez & U.S.Sarma(842/MAS/2000 dated 5 th October 2000)	Producing erosion control blanket from coir fibre
9	An Erosion control (case G) by Christy Fernandez and U.S.Sarma(843/MAS/2000 dated 5 th October 2000)	Producing erosion control blanket from coir fibre
10	A readymade Lawn by Christy Fernandez and K.P. Somanathan Nair (664/MAS/2001 dated 13 th August, 2001)	Manufacture of instant soilless lawn from coir materials.
11	A process for composting of coir pith and other recalcitrant agricultural residues, T.A Rajendrabau, Anita Das Ravindranath, U.S. Sarma, Christy Fernandez, P.K.Ghosh(948/MAS/2002 dated 17 th December, 2002)	Composting of coir pith in a shorter period.
12	A process for preparation of coir composite board, R.Vasudev, M.Sudhakaran Pillai, U.S.Sarma, Christy Fernandez and P.G.Deshmukh (193/MAS/2003 dated 10 th March, 2003)	Preparation of panel board from coir fibre
13	An improved mild steel handloom, T.A.Rajendra babu and U.S.Sarma (548/CHE/2003 dated 2 nd July 2003)	Metallic handloom for weaving coir geo textiles by women
14	Treatment of coconut fibres, U.S Sarma, P.K.Ravi and A.K. Mukharjee (1177/KOL/2005 dated 23 rd December 2005)	Softening process for coir fibre

15	A process for dyeing of coir pith natural dyes, U.S.Sarma, P.K.Ravi, I.R.Anto, V.A.Sebastain and R.Sunilkumar (1369/CHE/2003 dated 2 nd July 2003)	Dyeing of coir with natural dyes
16	Pneumatic loom for weaving mat and mattings, (Provisional) T.A. Rajendra Babu and U.S.Sarma (1178/KOL/2005 dated 23 rd December 2005)	Loom for weaving all types of coir products, operated by compressed air

PATENT PENDING

1	A process for the treatment of coconut fibre after separation from husk (620/KOL/2007 dated 20 th April 2007)	Softening of coir fibre by biological method
2	A mobile coir fibre extraction machine extract from green/dry coconut husk. A Radhakrishnan, C.R.Komalakumar, T.A Rajendrababu & U.S.Sarma (286/KOL/2010 dated 22 nd March 2010)	A Small mobile fibre machine for extraction of coir fibre from husk and moved from one place to another easily
3	A versatile automatic rotor based coir fibre spinning machine to spin coir fibre obtained from green/dry coconut husk. U.S.Sarma, T.A.Rajendrababu, C.R. Komalakumar, A Radhakrishnan 23 rd April 2012	Automatic ratt for making 2 ply coir yarn
4	Compact PVC tufting machine to produce small mats, T.A. Rajendra Babu, U.S.Sarma, Gopalan Balachandran and Payaningal Aboobackar Koya, Wheel free Calicut (433/Kol/2014 dated 03/04/2014)	Compact Mini tufting machine for making tufted coir mats
5	An ecofriendly process of softening/bleaching of coir fibre, coir yarn, mats and matting. Gopalan Balachandran, U.S.Sarma, Anita Das Ravindranath (462/Kol/2014 dated 16/04/2014)	Process for softening/bleaching coir fibre
6	An ecofriendly process of manufacturing handmade paper of coir fibre, Gopalan Balachandran, U.S.Sarma, T.A.Rajendra Babu (485/Kol/2014 dated 23/04/2014)	Process for making paper from bit coir fibre.